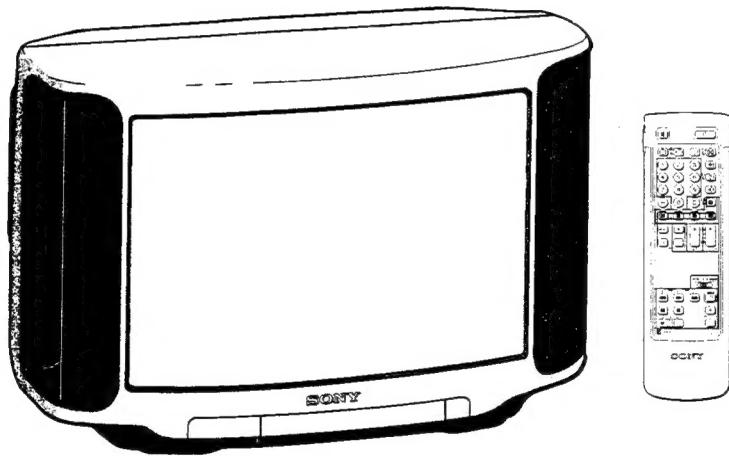


SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-C2981A	RM-833	Italian	SCC-G81E-A	KV-C2981D	RM-833	AEP	SCC-G77C-A
KV-C2980B	RM-833	French	SCC-G85E-A	KV-C2983E	RM-833	Spanish	SCC-G82G-A



TRINITRON® COLOR TV
SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian	B/G/H	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, L, I	NICAM Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H,	NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	AEP	Italian	French	Spanish
Power Consumption	108W	108W	108W	108W

SPECIFICATIONS

Picture Tube Hi-Black Trinitron
 Approx. 72 cm (29 inches)
 (Approx. 68 cm picture measured
 diagonally)
 110° -deflection

Input/Output Terminals

[REAR]

- ⊖ 1 21-pin Euro connector (CENELEC standard)
 - inputs for audio and video signals
 - inputs for RGB
 - outputs of TV video and audio signals
- ⊖ 2/⊖ 2 21-pin Euro connector
 - inputs for audio and video signals
 - inputs for S video
 - outputs for audio and video signals (selectable)

[FRONT]

- ⊖ 3 Video input - phono jack
- ⊕ 3 Audio inputs - phono jacks
- ⊖ 3 S video input 4-pin DIN
- Ω Headphone jacks : stereo minijack

Sound output	2 x 20W (Music power)
Power requirements	220 - 240V
Dimensions	Approx. 720x514x480 mm
Weight	Approx. 38kg
Supplied accessories	RM-833 Remote Commander (1) IEC designation R6 battery (1) NICAM, FASTEXT, TOPTEX T.
Other features	

[RM-833]

Remote control system	infrared control
Power requirements	1.5V dc 1 battery IEC designation R6 (size AA)
Dimensions	Approx. 65x225x21 mm (w/h/d)
Weight	Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice.

Item \ Model name	KV-C2981A	KV-C2980B	KV-C2981D	KV-C2983E
RGB Priority	ON	ON	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON
AKB in 16:9 mode	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON
Norm I	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF
Teletext	ON	OFF	ON	ON
Nicam Stereo	OFF	ON	OFF	ON
Language Preset	Italian	French	Deutsch	Spanish

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD, DUE TO A LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ! ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINT SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE. LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE !!

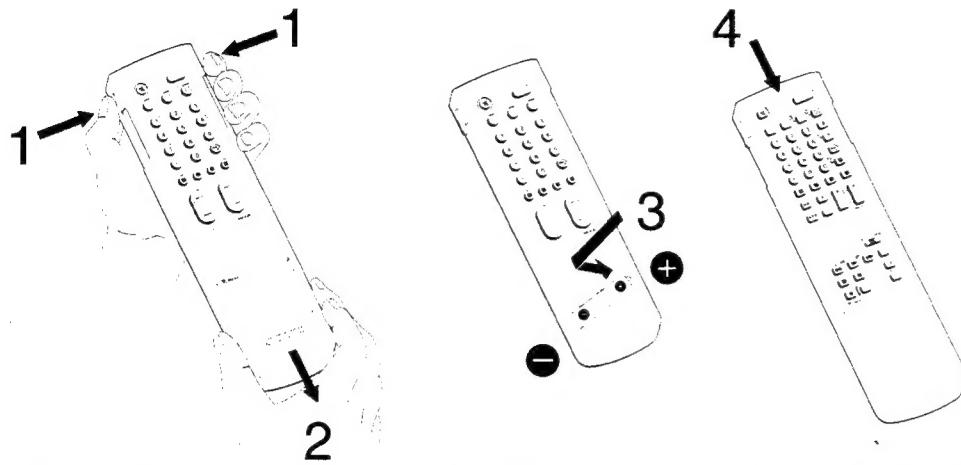
LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE ! SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS LES SUPPLEMENTS PUBLIES PAR SONY.

SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Getting Started

Inserting the Battery Into the Remote Commander



Remove the cover.

Check the correct polarity.

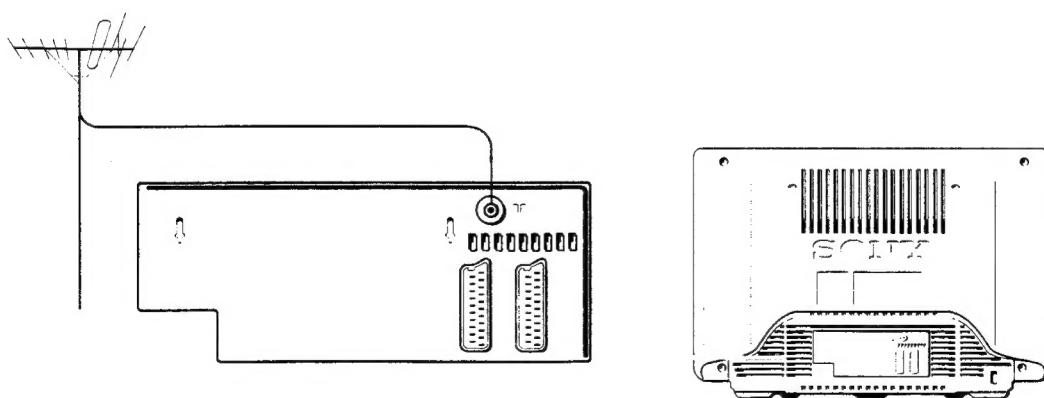
Refit the outside cover making sure that the Full Function side is visible.

About Battery Life

Under normal operation, a battery will last up to half a year.

Connecting the Aerial

Connect the aerial to the **TF** socket at the rear of the TV.
(cable not supplied)



Choosing a Language

(See inside of front cover and back cover)

1 Depress ① A on the TV.

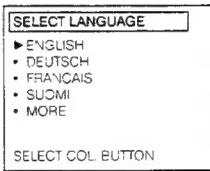
The TV turns on. If the standby indicator **B** on the TV is lit, press **C** ③ or any number button ④ on the Remote Commander.

2 Press MENU ⑦ on the Remote Commander.

The SELECT LANGUAGE screen appears.

3 Press one of the colour buttons ⑦ on the Remote

Commander to select a language (Press the white button ⑦ to display other language alternatives). The SELECT LANGUAGE screen clears and all subsequent menus appear in the chosen language.



Note: From the second time when you turn on the TV, the MENU screen appears instead of the SELECT LANGUAGE screen. Press the yellow button ⑦ then press the white button ⑦ to redisplay the SELECT LANGUAGE screen.

Tuning in to Channels

You can tune in up to 60 channels to programme positions either automatically or manually.

auto tuning:

A single button press allows all receivable channels to be tuned. Use if you are unfamiliar with the channel numbers of stations.

manual tuning:

Use if you are familiar with the channel numbers of stations.

Choose the more appropriate way for you.

Tuning in to Channels Automatically

There are two possibilities for auto tuning:

A. On the TV: hold down **■** **■** on the front of the TV for 2 seconds

Note: The button **■** for Automatic Presetting of channels is protected to prevent accidental usage. Use a pencil to press it.

or

B. On the Remote Commander: as follows

1 Press MENU ⑦.

2 Press the white button ⑦.

3 Hold down the red button ⑦ for 2 seconds.

Note: Press the green button ⑦ to cancel.

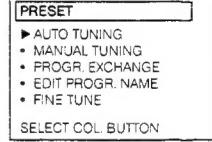
Tuning in to Channels Manually

1 Press MENU ⑦.

The MENU screen appears. **[MENU]**

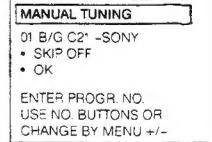
2 Press the white button ⑦ to select PRESET.

The PRESET screen appears.



3 Press the green button ⑦ to select MANUAL TUNING

The MANUAL TUNING screen appears.



4 Press the number buttons **④** or MENU +/- **⑨** to select a programme position.

If you use the number buttons **④**, enter a double-digit number. (e.g. for programme number 4, first press 0, then 4)

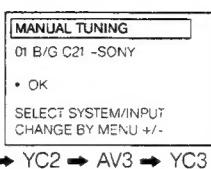
5 Press the green button **⑯**.

Note: Use MENU +/- **⑨** to select TV system.

You can alternatively select input sources which may be assigned to programme positions.

The display changes as follows:

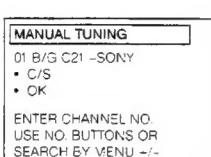
B/G → D/K → AV1 → RGB → AV2 → YC2 → AV3 → YC3



6 Press the green button **⑯**.

Note: If a video input source is selected in step 5, this is now stored.

Refer to step 4 to tune other programme positions.



7 If you have selected B/G in step 5, press the red button **⑯** to select C (regular channel) or S (cable channel).

8 Press the number buttons **④** or MENU +/- **⑨** to select the channel number.

If you use the number buttons **④**, enter a double-digit number. (e.g. for channel 23, first press 2, then 3)

9 Press the green button **⑯** to store.

Note: If you want to preset other channels, repeat steps 4 to 9.

10 Press MENU **⑩** twice to return to the normal screen.

Note: You can skip unused programme positions when selecting programmes with the PROGR +/- buttons **⑯**.

Press the red button **⑯** to skip in step 4. However, the skipped programmes may still be called up when you use the number buttons.

Basic TV Operations

Turning the TV on and off

Turning on

Depress **① A** on the TV.

Turning off temporarily

Press **① ⑯** on the Remote Commander.

The TV enters standby mode and the standby indicator **B** on the front of the TV lights up.

Turning on again

Press **② ⑩**, PROGR +/- **⑯**, or one of the number buttons **④** on the Remote Commander.

Turning off completely

Depress **① A** on the TV.

Note: It is recommended to use **① A** to turn off the TV. This could help you save energy.

Selecting TV Programmes

Press PROGR +/- **⑯** or press the number buttons **④**.

To select a double-digit number

Press **③ ⑨**, then the number buttons **④**.

Adjusting the Volume

Press **④ +/- ⑯**.

Muting the Sound

Press **⑩ ⑯**.

To resume normal sound, press **⑩ ⑯** again.

Displaying the On-screen Indications

Press **⑩ ⑯** once to display the on-screen indications.

Press again to make the indications disappear.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can adjust or select the functions as follows:

Press **④ +/- ⑯** to adjust the volume.

Press **P +/- ⑯** to select programme numbers or to turn the TV on from the standby mode.

Press **⑤ ⑯** to select the input source.

Press **⑥ ⑯** to preset channels automatically.

Advanced TV Operations

Operating the Menu System

You can adjust picture and sound, preset channels to programme positions and utilise other convenient features by using the following menu system.

Press:	to:
1 MENU ⑦	enter the MENU screen
2 a colour button ⑦	select an item you want to change (The selected item is marked by a triangle.)
3 MENU +/- ⑨	change (or adjust) the contents of the item
4 MENU ⑦	return to the MENU screen
5 MENU ⑦ again	return to the normal screen

Press MENU ⑦ once or twice whenever you want to return to the normal screen.

Note: When selecting menus, the picture becomes darker. If, however, an item in the PICTURE ADJUSTMENT menu is selected, normal level of TV picture is restored to allow the best adjustment.

Adjusting the Picture and Sound

Although picture and sound are adjusted at the factory you can adjust them to suit your own taste.

1 Press MENU ⑦.
The MENU screen appears.

2 Press the red button ⑦ to select PICTURE or the green button ⑦ to select SOUND.

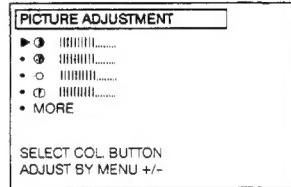
3 Press the respective colour button ⑦ to select an item.

4 Press MENU +/- ⑨ to adjust.

5 Press MENU ⑦ twice or wait until the menu displays disappear automatically to return to the normal screen.

PICTURE ADJUSTMENT

(First Page)



Press colour button	Effect
Red: For Picture ⑦	Less —+— More
Green: For Colour ⑦	Less —+— More
Yellow: For Brightness ⑦	Darker —+— Brighter
Blue: For Sharpness ⑦	Softer —+— Sharper
White:	Next page of PICTURE ADJUSTMENT

PICTURE ADJUSTMENT

(Second Page)

PICTURE ADJUSTMENT	
<ul style="list-style-type: none"> ► COLOUR TONE NORMAL • NOISE REDUCE ON • FORMAT NORMAL •   • BACK 	
SELECT COL. BUTTON	CHANGE BY MENU +/-

Press colour button

Effect

Red:
For Colour Tone

Normal \Rightarrow Warm
(reddish colour tone)
 \Rightarrow Cool (blueish colour tone)

Green:
For Noise Reduce

ON: Reduces picture
noise (in case of low signal
level)
OFF: Normal setting

Yellow:
For Format

Normal: Normal setting
16:9 Wide screen effect

Blue:
For Hue control 
(only for NTSC
video signals)

Reddish \longrightarrow Greenish

White:

Back to first page of
PICTURE ADJUSTMENT

Note: Press $\rightarrow\leftarrow$ ⑧ on the Remote Commander to reset to the factory preset levels for picture and sound.

SOUND ADJUSTMENT

(First Page)

SOUND ADJUSTMENT	
<ul style="list-style-type: none"> ►   •   • MORE 	
SELECT COL. BUTTON	ADJUST BY MENU +/-

Press colour button

Effect

Red:
For Volume 

Less \longrightarrow More

Green:
For Treble 

Less \longrightarrow More

Yellow:
For Bass 

Less \longrightarrow More

Blue:
For Balance 

More left – more right

White:

Next page of
SOUND ADJUSTMENT

SOUND ADJUSTMENT

(Second Page)

SOUND ADJUSTMENT	
<ul style="list-style-type: none"> • SPACE SOUND OFF • LOUDNESS OFF •  STEREO • BACK 	
SELECT COL. BUTTON	CHANGE BY MENU +/-

Press colour button

Effect

Red:
For Space Sound

OFF: normal sound
ON: for a special acoustic
sound effect

Green:
For Loudness

OFF: normal sound
ON: when listening to music
broadcast

Yellow:
For Stereo

Stereo \Rightarrow Mono A (left channel)
 \Rightarrow Mono B (right channel)
 \Rightarrow Mono

White:

Back to first page of
SOUND ADJUSTMENT

Note: Press $\rightarrow\leftarrow$ ⑧ on the Remote Commander to reset to the factory preset levels for picture and sound.

Using Special Features

With your TV you can utilise special features such as Parental Lock or Sleep Timer.

1 Press MENU ⑦.
The MENU screen appears.

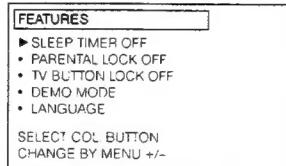
2 Press the yellow button ⑦ to select FEATURES.

3 Press the respective colour button ⑦ to select an item.

4 Press MENU +/ - ⑦ to change.

5 Press MENU ⑦ twice or wait until the menu displays disappear automatically to return to the normal screen.

FEATURES



Press colour button	Effect
Red: For Sleep Timer (Automatic switch off function)	OFF \Rightarrow 0:30 \Rightarrow 1:00 \Rightarrow 1:30 \Rightarrow 2:00 (hours) After the selected time the TV set switches itself automatically into standby mode.
Green: For Parental Lock (For preventing children from watching programmes which you consider unsuitable)	OFF: Normal setting ON: The TV-channel you are watching is now blocked. In this way you can prevent undesirable broadcasts from appearing on the screen.
Yellow For TV Button Lock	OFF: Normal setting ON: The buttons on the TV do not function anymore. (The Remote Commander still operates)
Blue: For Demo Mode	ON: A sequence of menu pictures is displayed. Press any button on the Remote Commander to stop the function.
White: For Language	The SELECT LANGUAGE screen appears.

Advanced Presetting Functions

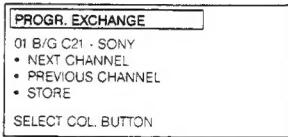
Exchanging Programme Positions

You can exchange the programme positions to a preferred order (example: exchange programme 09 (channel C21) with programme 15 (channel C24)).

1 Press MENU ⑦.
The MENU screen appears.

2 Press the white button ⑦.
The PRESET screen appears.

3 Press the yellow button ⑦.
The PROGR. EXCHANGE SCREEN appears.



4 Press the white button ⑦ repeatedly until the desired programme number (09) appears.

5 Press the red or the green button ⑦ repeatedly until the desired channel number (C24) appears.

6 Press the white button ⑦ to store.
Now exchange has been completed. Channel C24 is tuned in to programme 09 and channel C21 is tuned in to programme 15.

7 Press MENU ⑦ twice to return to the normal screen.

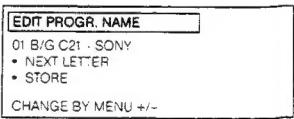
Editing Programme Names

You can edit the programme names up to five letters.

1 Press MENU ⑦.
The MENU screen appears.

2 Press the white button ⑦.
The PRESET screen appears.

3 Press the blue button ⑦.
The EDIT PROGR. NAME screen appears.
The first character flashes.



4 Press MENU +/- ⑨ to edit the first letter.

The first letter changes as follows

A ↔ B ↔ ... ↔ Z ↔ 1 ↔ ... 9 ↔ “-” (space).



5 Press the red button ⑯ to move to the next letter.

6 Repeat steps 4 to 5, until the fifth letter is chosen.

7 Press the green button ⑯.

The programme name is stored, and the normal screen appears. To edit another programme name, repeat steps 1 to 7.

Fine Tuning

You can adjust the receiving conditions by the FINE TUNE function.

1 Press MENU ⑦

The MENU screen appears.

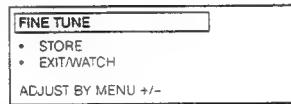


2 Press the white button ⑯.

The PRESET screen appears.

3 Press the white button ⑯ again.

The FINE TUNE screen appears.



4 Press MENU +/- ⑨ to adjust the receiving condition.

5 Press the red button ⑯ to store the adjustment, or press the green button ⑯ not to store.

Now the normal screen appears. If you have pressed the green button, the fine tuned condition is cancelled once you choose another programme.

Note: If the FINE TUNE screen disappears automatically before you press the red button ⑯, the fine tuned condition is not stored. Repeat steps 1 to 5.

Tuning in to a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset.

1 Press C ⑯ on the Remote Commander.

For cable channels press C ⑯ twice. The indication "C" (or "S" for cable channels) appears on the screen.

2 Enter a double digit channel number using the number buttons (e.g. for channel 23, first press 2, then 3).

The channel appears.

However, the channel is not stored.

Teletext Operation

TV stations broadcast teletext programmes via the TV channels. For basic operation of teletext, use the simple side of the Remote Commander. For the advanced features of teletext, use the buttons indicated in green on the full function side of the Remote Commander.

Basic Teletext Operation

Switching Teletext on and off

1 Select the channel which carries the teletext service you wish to view.

2 Press  ① to display Teletext.

If no teletext signal is broadcast, the indication P100 is displayed on a black screen.



3 Input three digits for the page number using the number buttons ①.

The numbers are displayed on the screen and the requested page appears in a few seconds.

Note: If you make a mistake, type in any three digits, then re-enter the correct page number.

4 Press  ③ to return to the TV mode.

Notes:

- To change the teletext channels, first press  ③ to return to the TV mode, then repeat steps 1 to 3.
- If the signal of a TV channel is weak, teletext errors may occur.

Advanced Teletext Operation

Using Fastext

With Fastext you can access pages with one button press. When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons ⑥ on the Remote Commander.

Press the corresponding colour button ⑥ on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed in a few seconds.

Requesting the Index page

Press  ⑦. The Index page appears.

Accessing the next or preceding page

Press  (PAGE →) or  (PAGE +) ⑩. The next or the preceding page appears on the screen.

Superimposing the teletext display on the TV picture

Press  ⑪ once if you are in text mode or press  ⑪ twice if in TV mode.

To return to the normal teletext display press  ⑪ again.



Preventing a teletext page from being updated or changed

Press  (HOLD) ②. The HOLD symbol  appears on the screen and the selected subpage is held until you press  ⑪ to cancel.

Enlarging the teletext display

Press  ⑬ once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.



Revealing concealed information (e.g. answers to a quiz)

Press  (REVEAL) ⑭. The information is revealed. Press  ⑯ again to conceal the information.

Watching TV while waiting for a requested page to be displayed

1 Request a new teletext page.

2 Press  (TEXT CL) ⑮.

The TV programme is displayed and the symbol  is displayed at the top of the page.

Note: When the requested page is available the page number is displayed at the top of the screen.

3 Press  ⑪ to view the page.

To cancel the request

Display the teletext page, then press  ⑯. The request is now cancelled. Press  ③ to resume TV mode.

Using the Favourite Page system

You can store up to four of your favourite teletext pages per programme with the help of the Favourite page system. In this way you have quick access to the pages you watch frequently.

Storing the Favourite Pages

1 Select the page you would like to store using the number buttons ④.

2 Press  ⑯ twice.

The colour prompts at the bottom of the screen flash.

3 Press any of the colour buttons ⑥ on the Remote Commander to store the selected page.

The page is now stored on this button.

Repeat steps 1 to 3 for the other 3 pages available.

Displaying the Favourite pages

1 Press  ⑯.

2 Press the colour button ⑥ corresponding to the colour prompt onto which the desired page is stored.

The page is requested. (It may take a few seconds to be received).

Note: Step 1 must be taken before every favourite page selection otherwise the normal Fastext facility operates.

Using the Time Function in the TV mode

Press  ⑫ to request the time. Press again to cancel the request.

Note: This function is available only when teletext is broadcast.

Connecting Other Equipment

You can connect optional audio/video equipment to this TV such as VCRs, video disc players, cameras or stereo systems.

Connector	Acceptable input signal	Available output signal
1 M (AV1/RGB)	Audio/video and RGB signal	Audio/video signal from TV Tuner
2/3 - 2 L (AV2/YC2)	Audio/video and S-video signal	Audio/video signal from selected source
3/3 - 3 H (AV3)	Audio/video signal	No outputs
3/3 - 3 G I (YC3)	Audio/S-video signal	No outputs

To watch a video input picture, press **2** until the desired video input appears.

To return to the normal TV picture, press **2** repeatedly or press **3**.

If you have a decoder, connect it to **1 M**.

Connecting a VCR Using the TV Aerial Terminal

Connect the aerial output of the VCR to the aerial terminal **1** of the TV. It is recommended to tune in the VCR signal to programme number "0". For details, see "Tuning in to Channels Manually" on page 20.

S video input (Y/C input) **2** **3**.

Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.

Separating the Y and C signals prevents them from interfering with each other and therefore improves the picture quality (especially luminance). This TV is equipped with 2 video input terminals through which these signals can be input directly.

Checking and Selecting the Input and Output Sources Using the Menu

You can display a menu screen to see which input and output source are selected. You can also change the selecting using this menu.

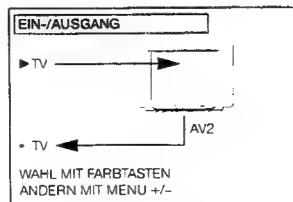
Checking the Input and Output Sources

1 Press MENU **7**.

The MENU screen appears.

2 Press the blue button **1** to select INPUT/OUTPUT.

The INPUT/OUTPUT screen appears.



Selecting an Input Signal

Press the red button **1** to select INPUT. Press MENU +/- **1** to select the desired input source.

You can select among the following sources:

TV \leftrightarrow AV1 \leftrightarrow RGB \leftrightarrow AV2 \leftrightarrow YC2 \leftrightarrow AV3 \leftrightarrow YC3



Selecting an Output Signal

The **2** / **3** connector **1** outputs the source input from the other connectors. Press the green button **17** to select OUTPUT. Press MENU +/- **1** to select the desired output source.

You can select among the following sources:

TV \leftrightarrow AV1 \leftrightarrow AV2 \leftrightarrow YC2 \leftrightarrow AV3 \leftrightarrow YC3



Note: Press **7** twice or wait until the menu display disappears automatically to return to the normal screen.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8 mm or VHS VCRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector **20** according to the equipment you want to control:

VTR 1: Beta or VCR

VTR 2: 8mm VCR

VTR 3: VHS VCR

MDP: Video Disc Player

2 Use the buttons **2** to operate the additional equipment.

Notes:

- If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MCP selector on the TV Remote Commander.
- If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.
- When you use the **●** (record) button, make sure to press this button and the one to the right of it simultaneously.

Using Headphones

You can utilise headphones. Connect them to the headphone jack **1**, then the sound from the speakers goes off.

Note: You can't control the sound adjustment except for volume.

For your Information

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

No picture (screen is dark), no sound

- Plug the TV in.
- Press ① **A** on the TV. (If the standby indicator **B** is lit, press **C** or any number button **D** on the Remote Commander.)
- Check if the selected video source is on.
- Turn the TV off for three or four seconds and then turn it on again using ① **A**.

Poor or no picture (screen is dark), but good sound

- Press MENU 7 to enter the MENU screen, and press the red button 11, then adjust 1 and 2.

Good picture but no sound

- Press \triangleleft + **19**.

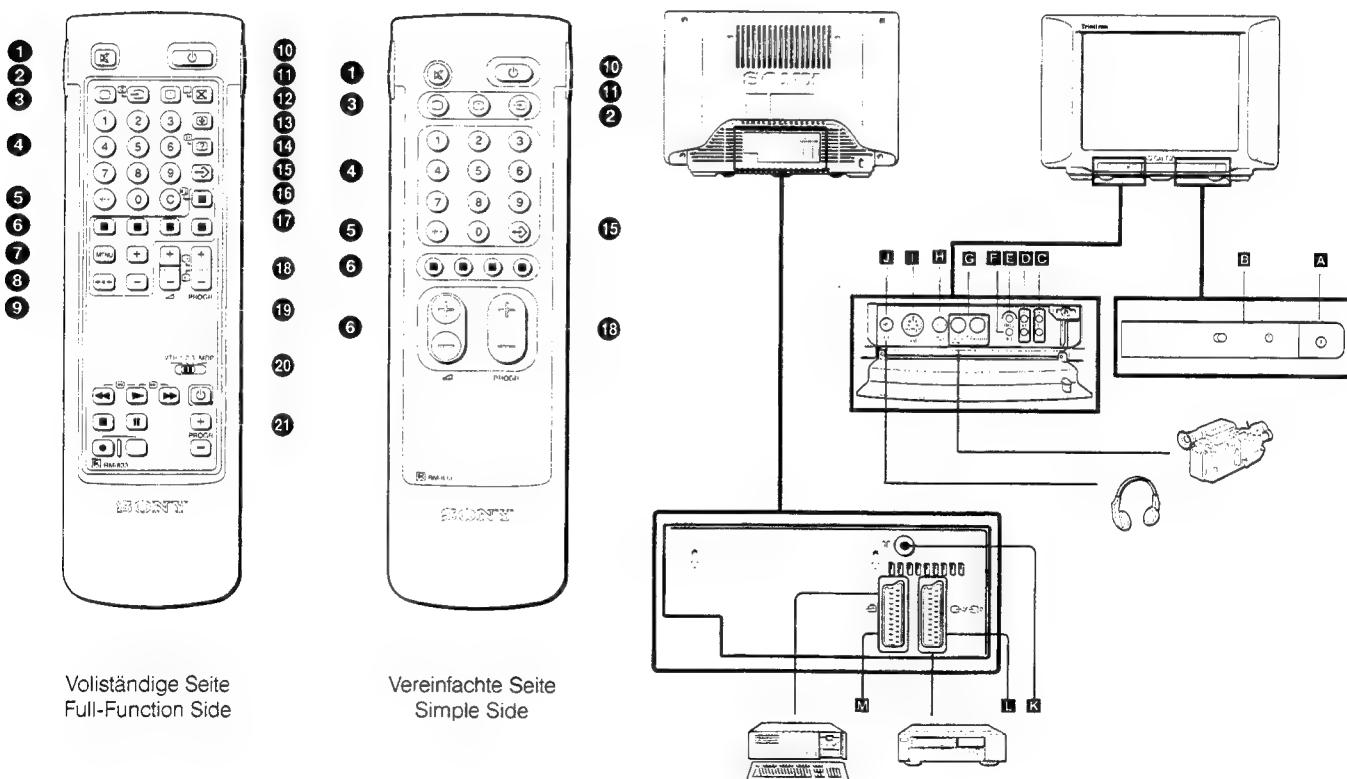
- If \times is displayed on the screen

- Press MENU 7 to enter the MENU screen, and press

the red button ⑦, then adjust ④

Replace the battery.

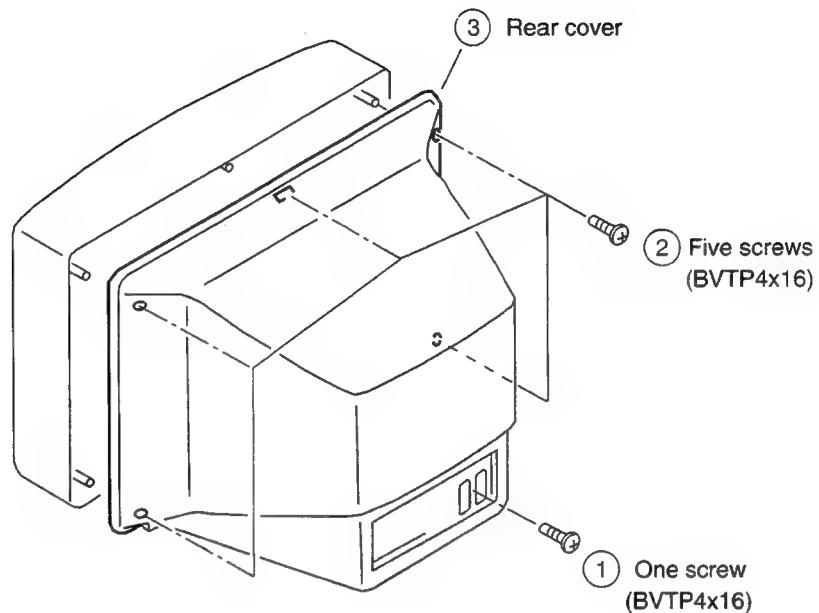
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.



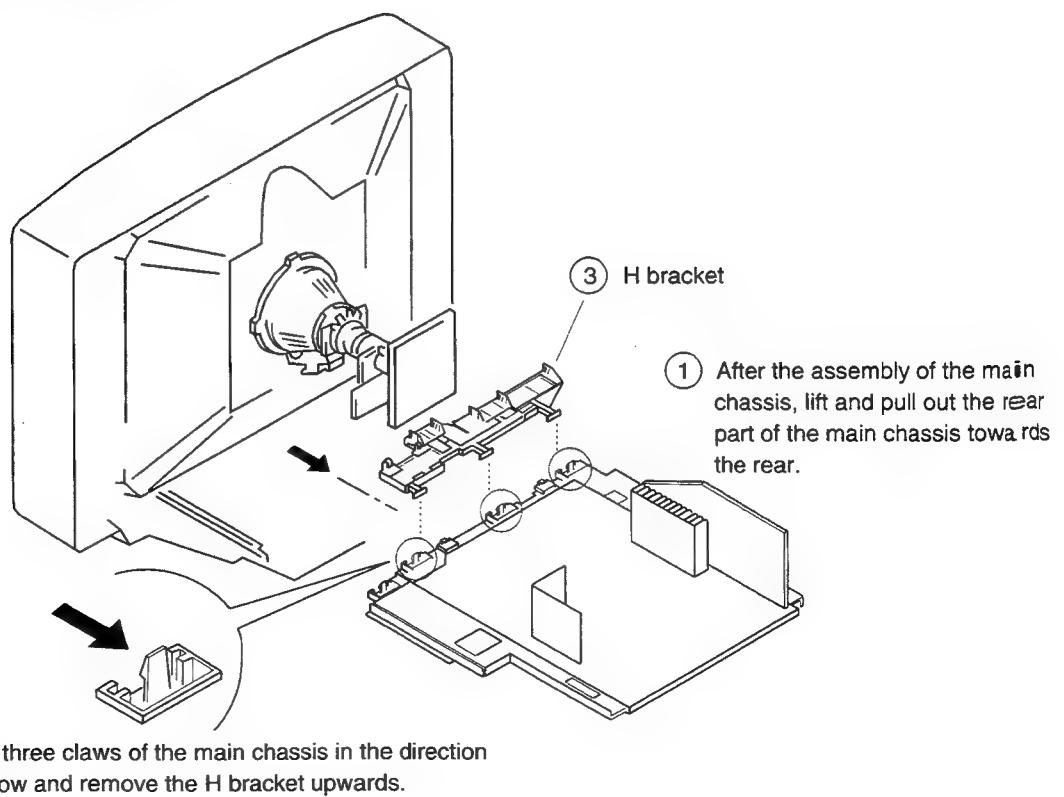
SECTION 2

DISASSEMBLY

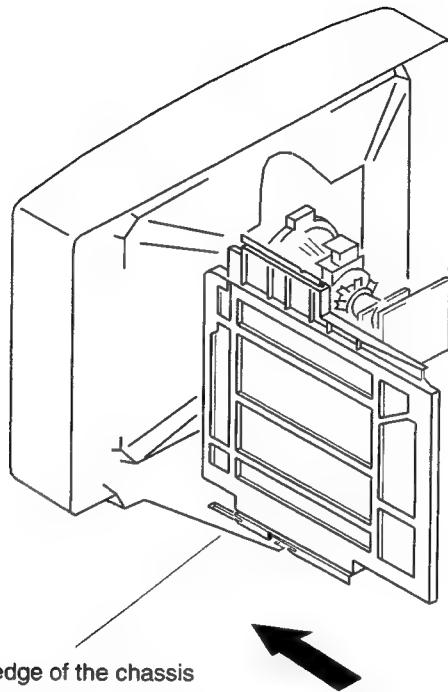
2-1. REAR COVER REMOVAL



2-2. CHASSIS ASSY REMOVAL



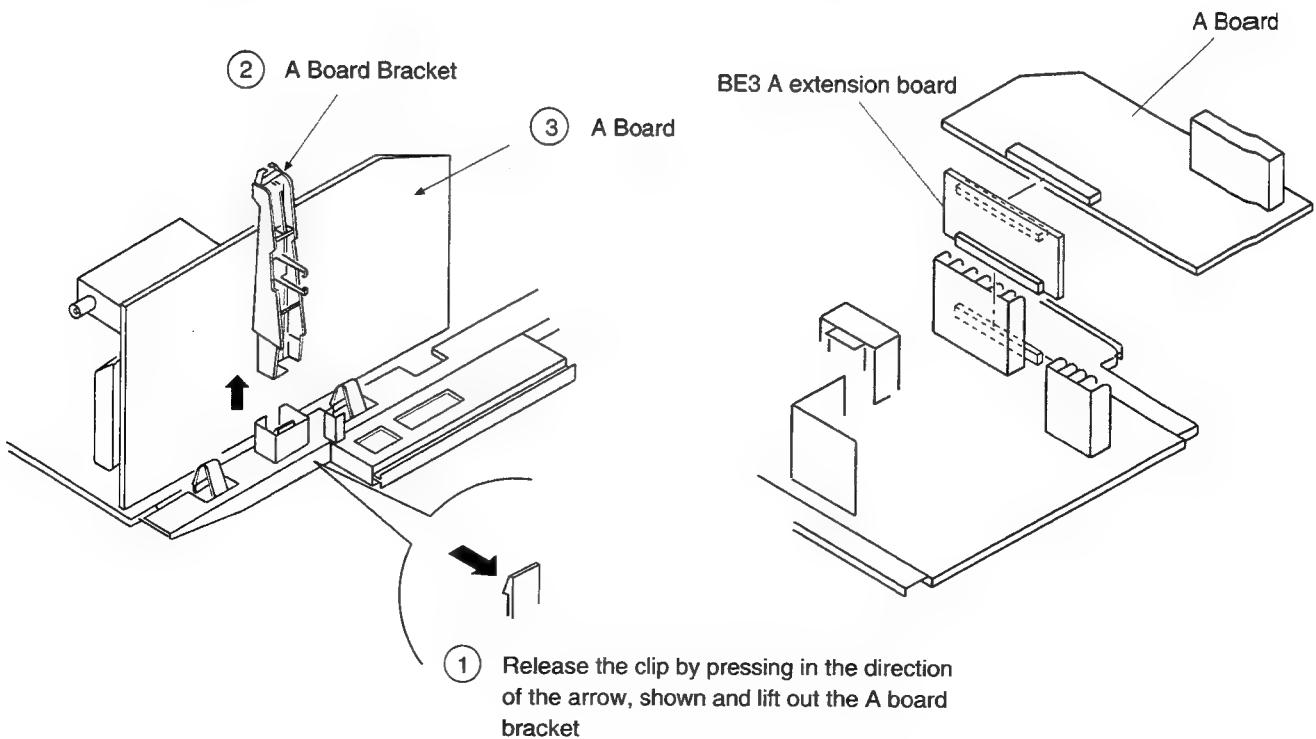
2-3. SERVICE POSITION



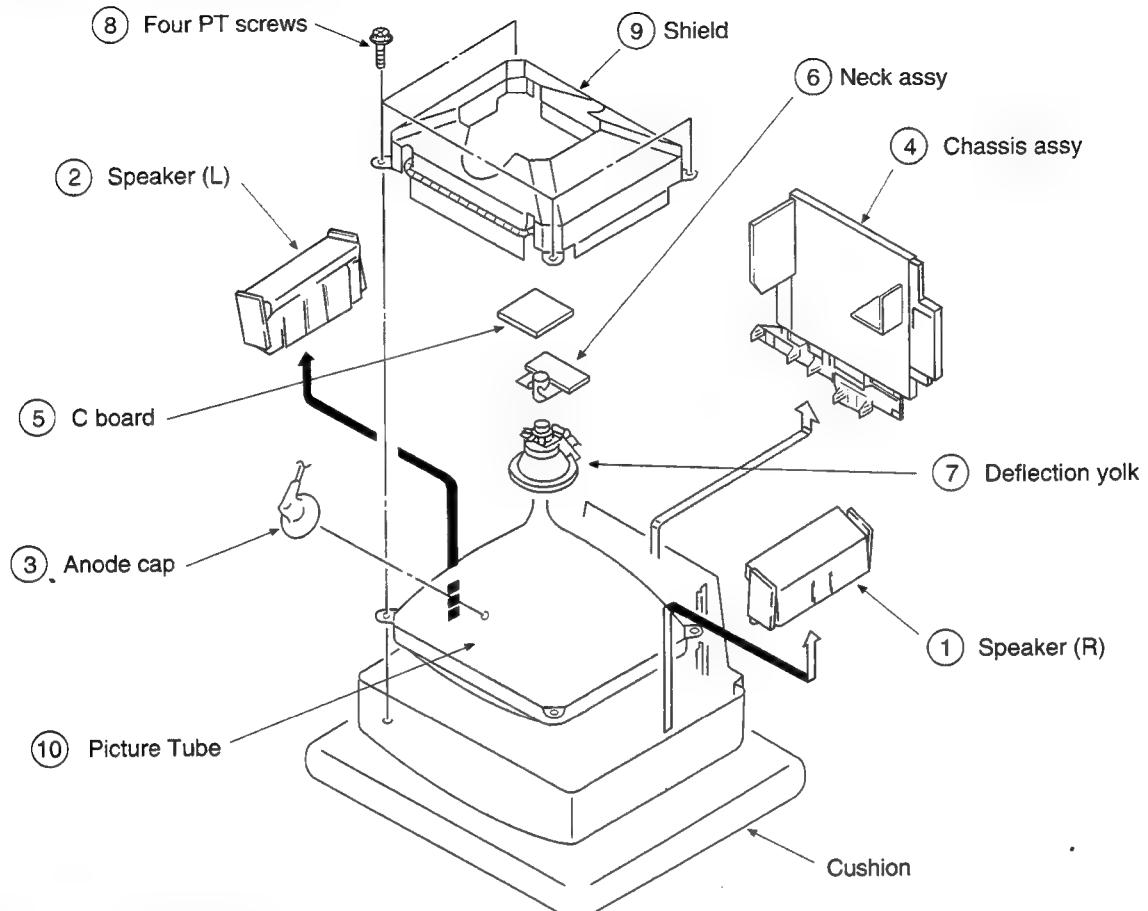
Locate the 2 slots on the edge of the chassis bracket in the locating holes and slide in the direction of the arrow

2-4. A BOARD REMOVAL

2-5. EXTENSION BOARD



2-6. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

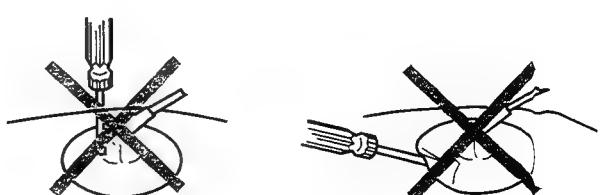
Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* REMOVING PROCEDURES.

- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :
 - Contrast 80% (or remote control normal)
 - Brightness 50%

- Carry out the following adjustments in this order :
 - Beam landing
 - Convergence
 - Focus
 - White balance

Note: Testing equipment required.

- Color bar/pattern generator
- Degausser
- DC power supply
- Digital multimeter
- Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

- Input the white signal with the pattern generator.
CONTRAST } normal
BRIGHTNESS }
- Position neck assy as shown in Fig.3-2.
- Set the pattern generator raster signal to red.
- Move the deflection yoke forward and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
- Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
- Switch the raster signal to blue, then to green and verify the condition.
- When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

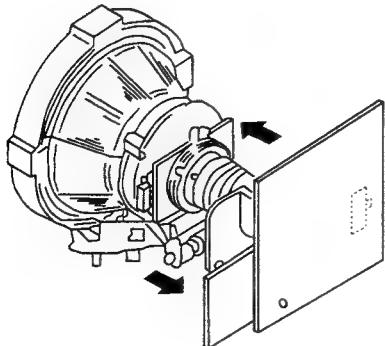


Fig. 3-1

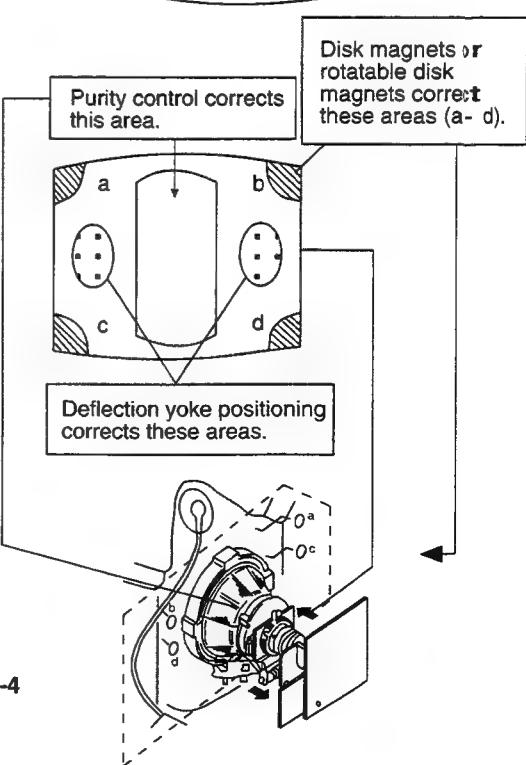
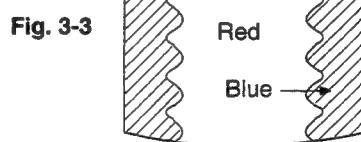
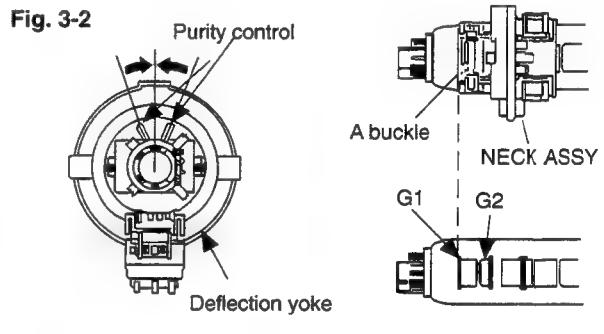


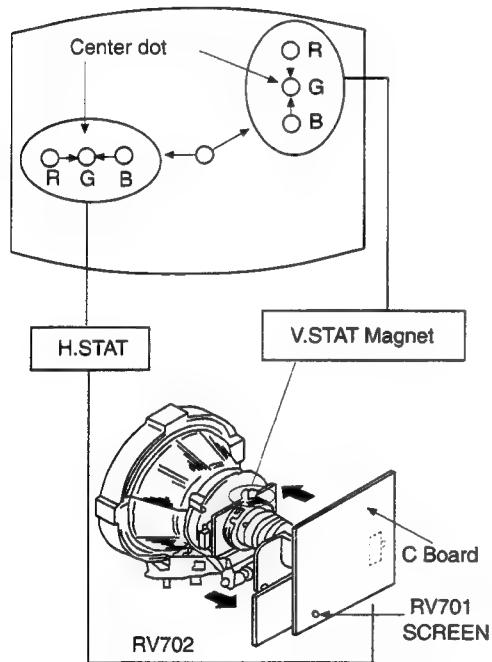
Fig. 3-4

3-2. CONVERGENCE

Preparation:

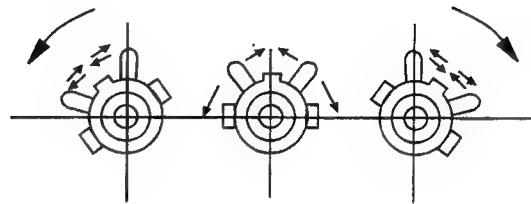
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

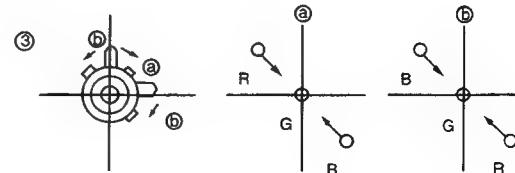
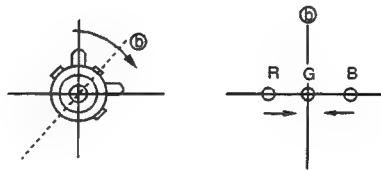
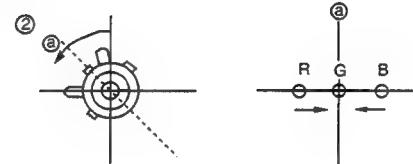
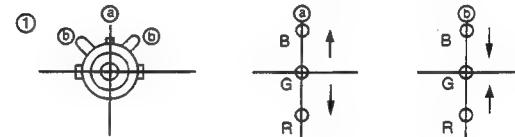


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

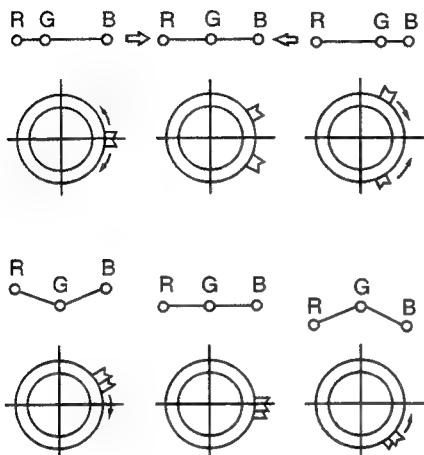
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



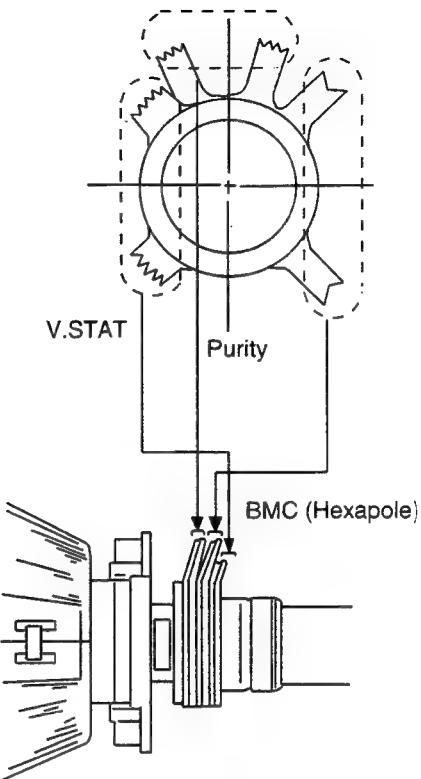
4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking. Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of the screen (by moving the dots in the horizontal direction).

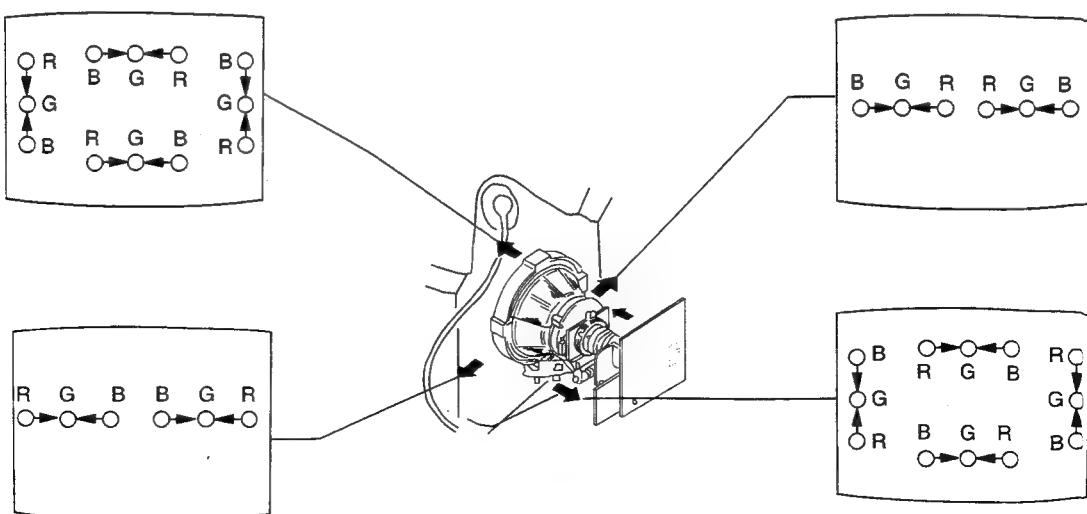


(2) Dynamic convergence adjustment.

Preparation:

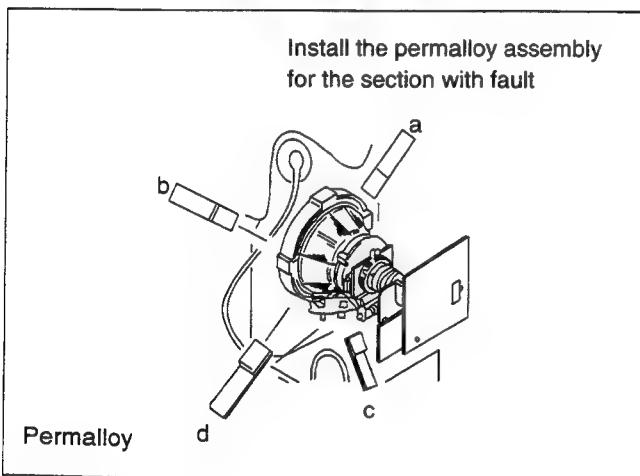
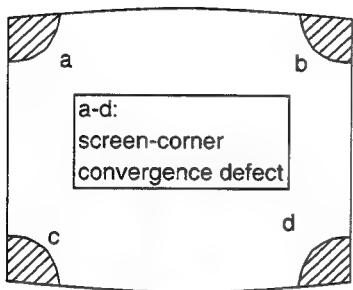
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- Slightly loosen the deflection yoke screws.

- Remove the deflection yoke spacer.
- Move the deflection yoke as shown in the figure below and optimize the convergence.
- Tighten the deflection yoke screws.
- Re-install the deflection yoke spacer.



(4) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.

**3-4. WHITE BALANCE****Screen G2 Setting**

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

White balance adjustment

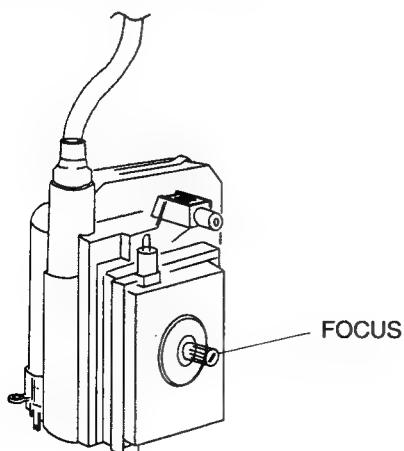
1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.

DEVICE : TDA8366 1
 STAT : 12
 NEXT
 PREVIOUS
 OK
 USE COLOUR KEYS
 SONY TEST MENU.

4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 040.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

3-3. Focus

Adjust the focus to optimize the screen.



SECTION 4

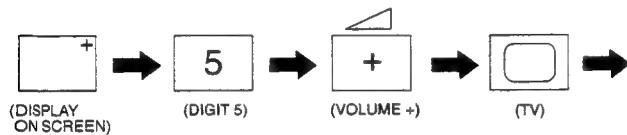
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-833.

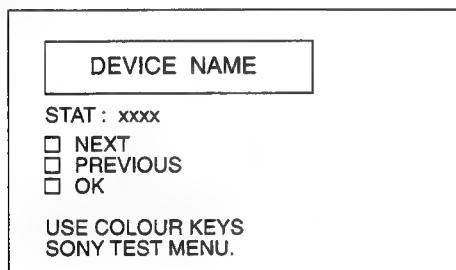
HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.

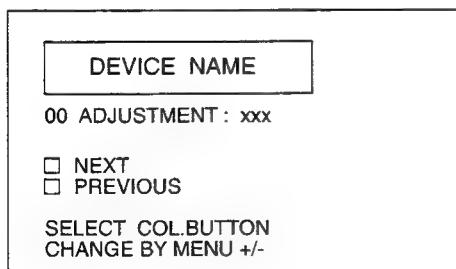


“TT” will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.



4. Press the Red (Next) and Green (Previous) buttons to select the device corresponding to the adjustment item from the table. Then press the White button (OK).



5. Press the Red (Next) or Green (previous) buttons to select the adjustment item. Then press the Δ and ∇ buttons to change the data to comply with each standard.
6. Turn off the power to quit the service mode when adjustments are completed.

Initial Conditions for setup of TDA8366, TDA6612 and SAA7283. (Stereo Models Only)

TDA8366 1	INIT VALUE	TDA8366 2	INIT VALUE
Hue	31	Interlace	00
H Shift	Adj	Sync Mode	00
H Size	Adj	Col Dec	00
Pin Amp	Adj	Vert Div	00
Com Pin	Adj	Vid ID	00
Tilt	Adj	EHT Track	01
V.Linear	Adj	En V Grd	00
V.Size	Adj	Serv Blk	00
S.Corr	Adj	OVP Mode	00
V.Cent	Adj	Aspect R	00
HWB Red	Adj	Start Freq	00
HWB Green	Adj	Y/C Input	00
HWB Blue	Adj	PAL/NTSC	00
Peaking	8	Xtal PLL	00
Bright	32	Y Delay	07
Colour	32	RGB Blk	00
Picture	37	Noise Cor	00
AGC Set	00	Fast Blk	01
Srce Sel 1	00	AFC Wind	00
Srce Sel 2	00	IF Sensty	00
Time Con	03	Mod Std	00
Xtal Ind	03	Vid Mute	01
FF Freq	02		

TDA6612	INIT VALUE	TDA6612	INIT VALUE
MPX Per	00	Mute 2	01
Quasi St	00	C1/2LS	00
Bass Exp	00	C1/2KH	00
H Pulse	00	Mono	01
Matrix St	00	Scart	00
Bypass	00	Scart D	00
Vol L Sp	07	AM	00
Vol R Sp	07	SAA7283	INIT VALUE
Vol HP	00	Mon M1/M2	01
Pll Sync	00	DM Select	01
Mute 3	01	SSWIT 123	07
Treble	08	Port 2	00
Bass	09	Mute Def	00
X Talk Adj	Adj	AMDIS	00
Mute 1	00	E Max	00
		E Min	01

4-2. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	"Menu" Flag request
10	Tenth entry is deleted
11	dummy
12	dummy
13	dummy
14	Forced AV 16:9 detection on/off
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Label for AV Sources
18	RGB Priority on/off
19	Clear all preset labels
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24	Set destination = U RGB Priority = Off
25	Set destination = D RGB Priority = Off
26	Set destination = B RGB Priority = On
27	Set destination = K RGB Priority = Off
28	Set destination = L RGB Priority = Off
29	Set destination = E RGB Priority = Off

30	Tenth entry is deleted
31	Set Destination = A RGB Priority = On
32	dummy
33	Auto AGC
34	N/S Pin Adjust
35	Manual AGC Adjust
36	dummy
37	dummy
38	dummy
39	dummy
40	Tenth entry is deleted
41	Re-initialise NVM
42	Production use only
43	Initialise Geom Settings
44	Initialise all favorite pages = 100
45	Channel locks = off
46	IR Channel Presetting Mode The channel presetting can be done by a Special IR Transmitter (Ver 2 and above software only)
47	dummy
48	Set NVM testbyte to 44h
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by μ -Controller.

In Test Mode the Menu display is switchable by the Speaker-Off button.

Note : For Test Modes 41 - 49 it is necessary to ensure that the TV is set to Prog 59.

SUB BRIGHTNESS ADJUSTMENT

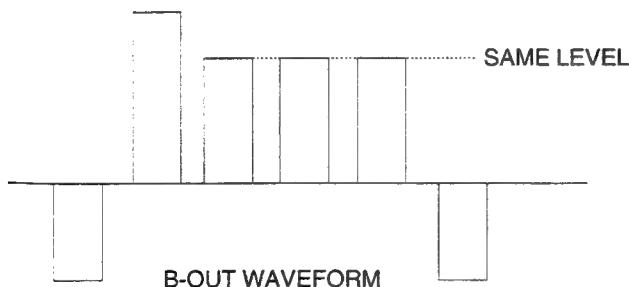
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin (1) of CN703 (R OUT) and adjust HWB Red data of TDA8366 1 to obtain 2.3Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin (3) of CN703 (B OUT) on the C board.
3. Enter into service mode and press 22.
4. Adjust data so that the right sides of the waveform are set to the same level.

**STEREO SEPARATION ADJUSTMENT**

1. Input a 1KHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and select the "Test Menu" to be TDA6612.
3. Select the Stereo Xtalk Adjustment Menu, by using the Red (Next) and Green (Previous) buttons.
4. Monitor the Scart 1 L-channel output and adjust the data so that the R-channel sound is not detected in the L-channel.

I.F. COIL ADJUSTMENT (T101) - B/G, D/K, I AND L STANDARD FOR CONTINENTAL MODELS.

1. Apply a 38.9MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

I.F. COIL ADJUSTMENT (T101) - I, STANDARD FOR U.K. MODELS.

1. Apply a 39.5MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

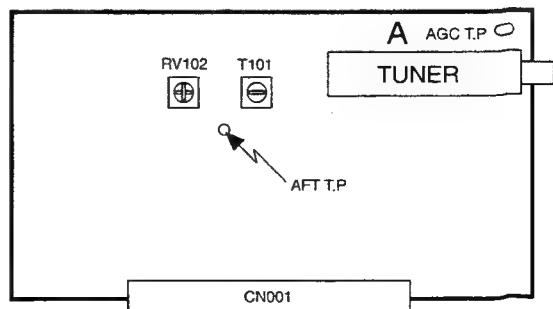
L, BAND 1 ADJUSTMENT (RV102) - L, STANDARD FOR FRENCH MODELS.

1. Apply a 33.95MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for positive modulation and system L band 1.
3. Measure the voltage at the AFT test point and adjust (RV102) to obtain 2.4V +/- 0.2V.

Note : Only adjust RV102 after T101 has been correctly adjusted.

AGC ADJUSTMENT

1. Receive an off-air signal.
2. Enter the service mode, ("Test" "Test") and 35.
3. Adjust the data so that there is no snow or cross-modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



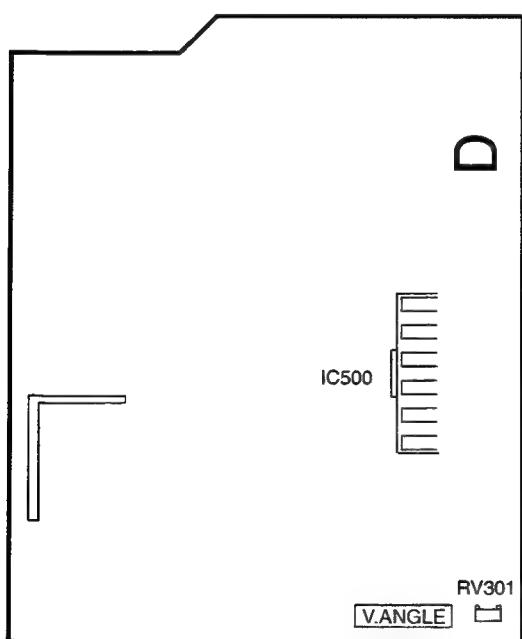
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

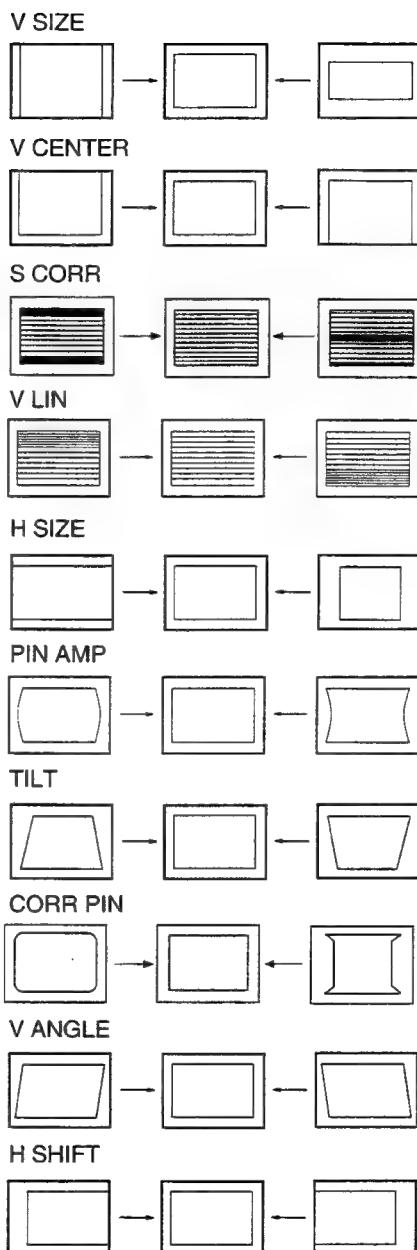
1. Enter into service mode.
2. Select and adjust each item in order to obtain the optimum image.

Item No	Adjustment item.	Data Amount
03	H SHIFT	ADJ.
04	H SIZE	ADJ.
05	PIN AMP	ADJ.
06	CORR PIN	ADJ.
07	TIILT	ADJ.
08	V LINEAR	ADJ.
09	V SIZE	ADJ.
0A	S CORR	ADJ.
0B	V CENTER	ADJ.

Note : V ANGLE is adjusted by a Variable Resistor on the 'D' Board (RV301)



- D Board Component Side -



4-3. BE3 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1., on fatal errors are reported with this method.

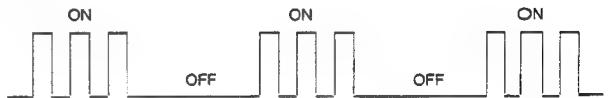
If a fatal error is found the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue operation.

Table 1

Device	LED Error Count	Fatal Error
NVM	2 .. 9	✓
Teletext	10	
Jungle	11	✓
Video_sw	12	
Tuner	13	✓
Nicam	14	
Audio_cont	15	✓

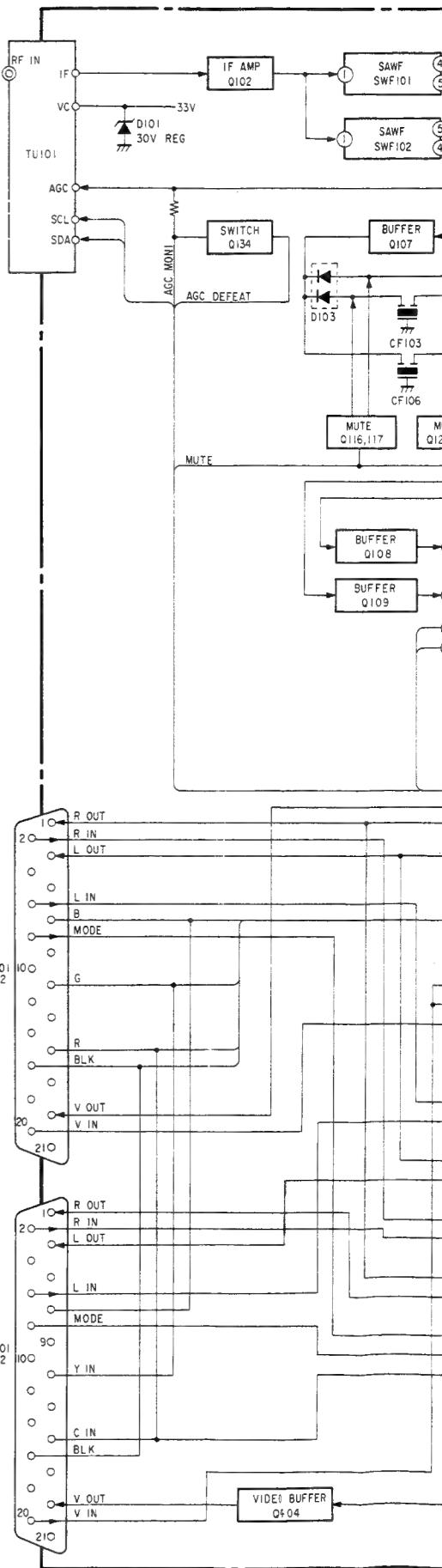
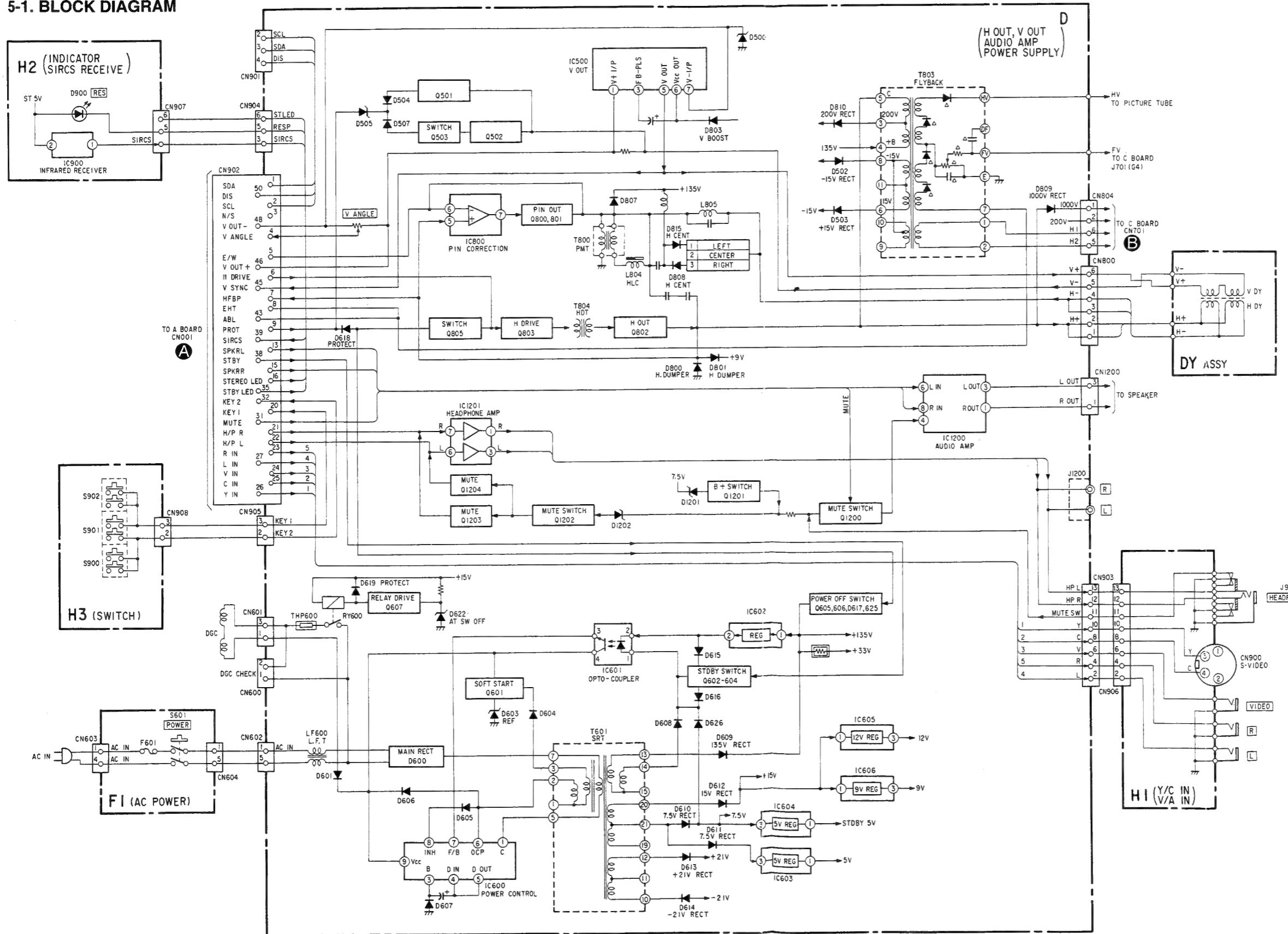
Flash Timing Example : e.g. error number 3.

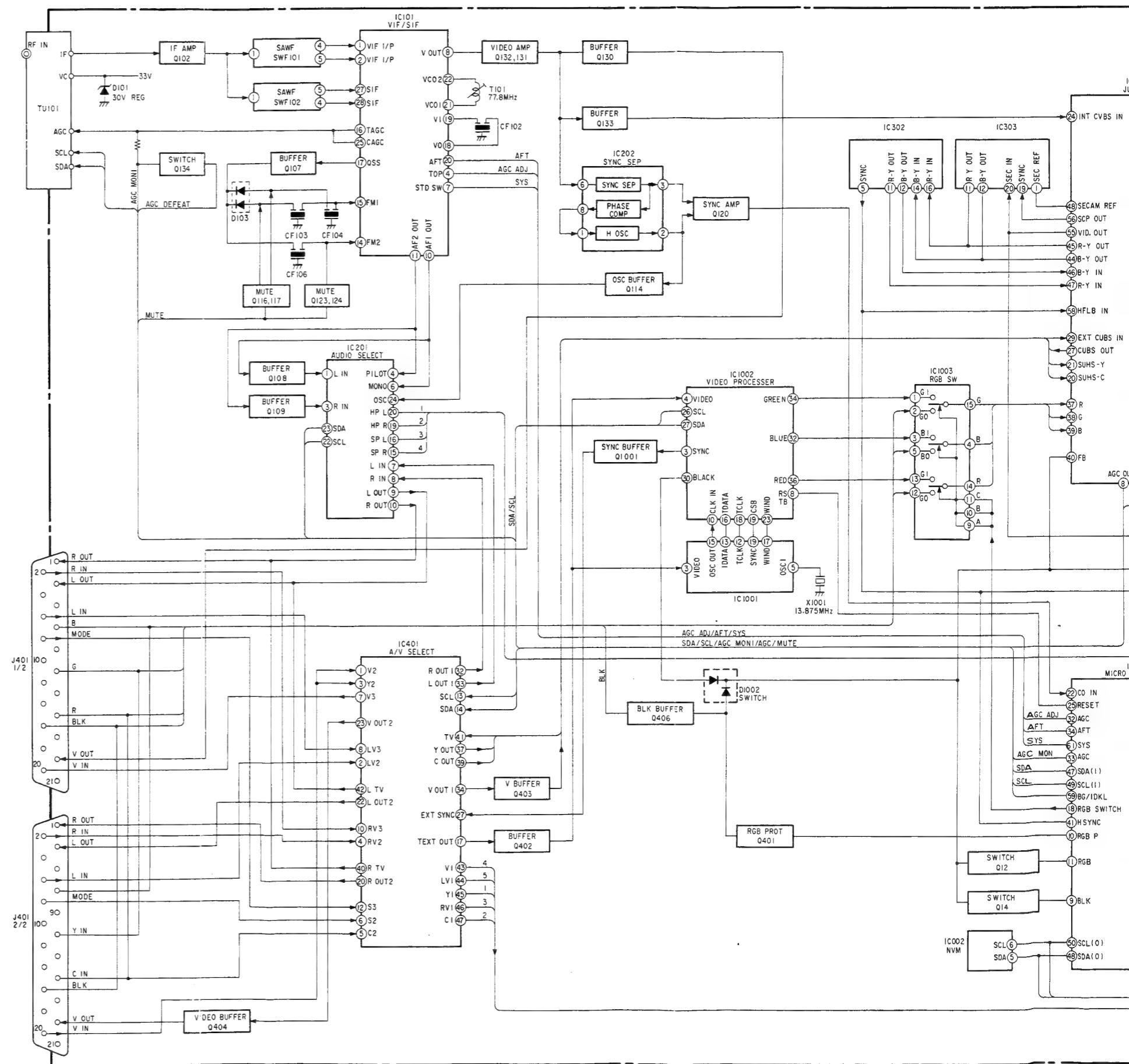
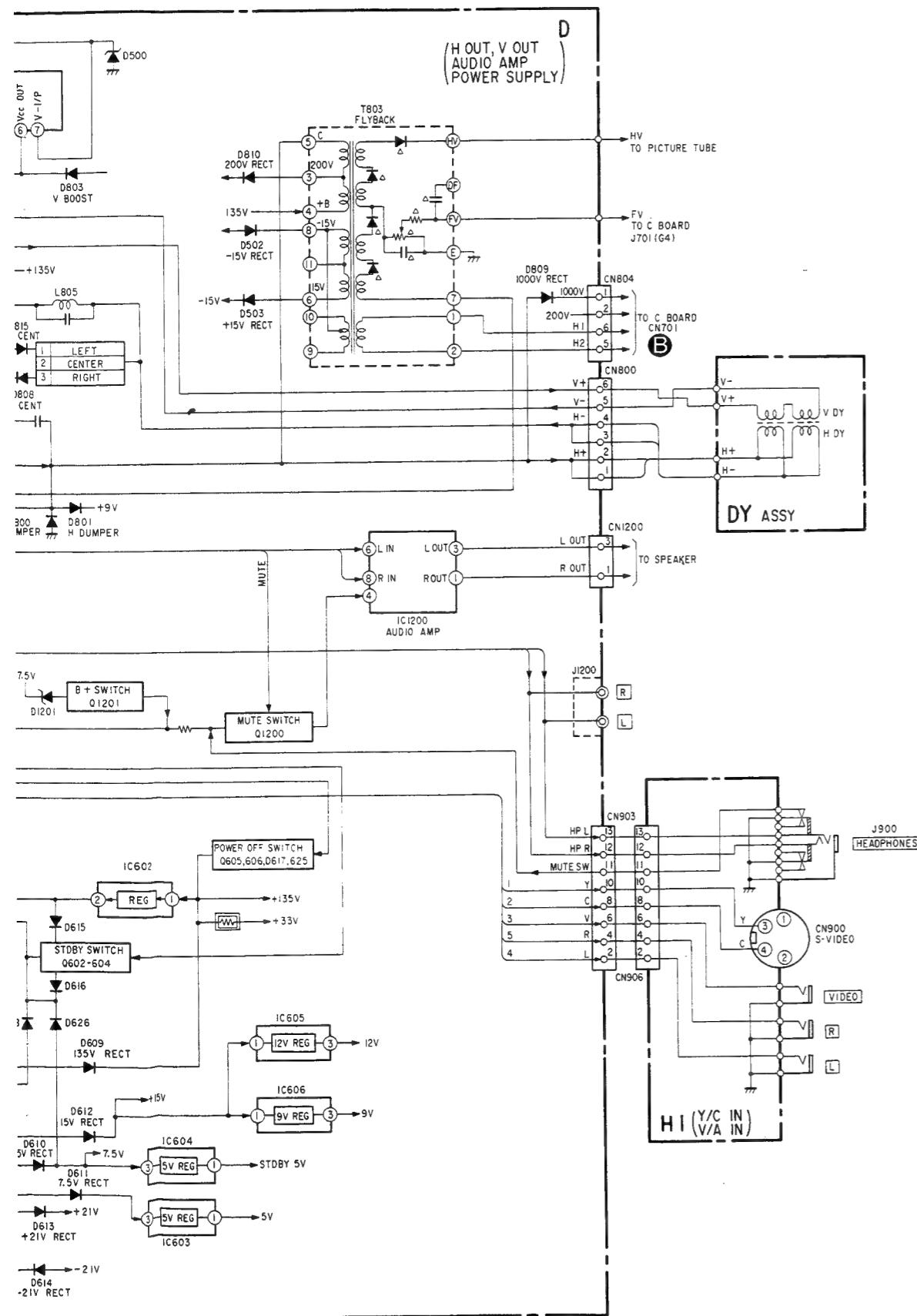
Stby LED

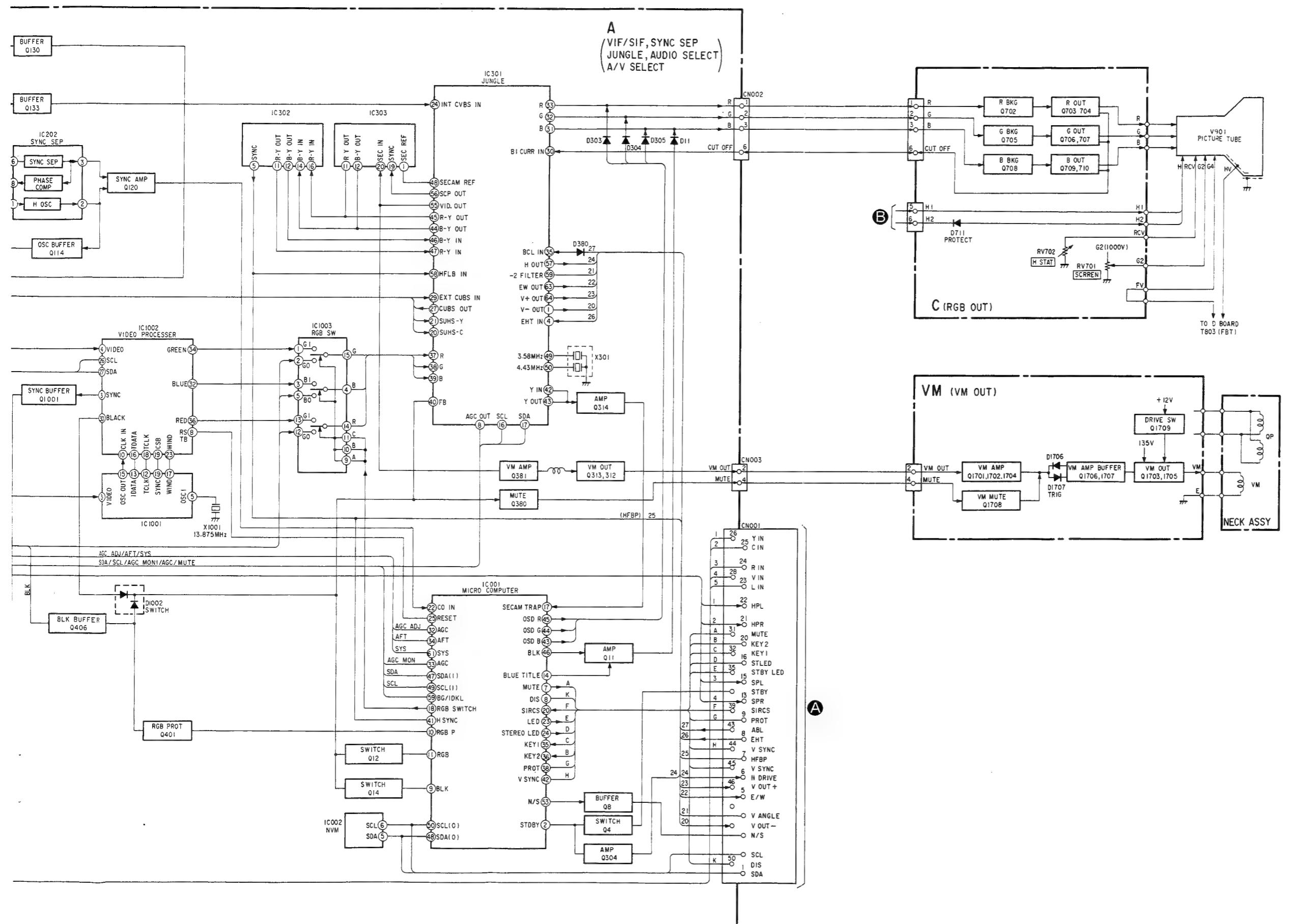


SECTION 5 DIAGRAMS

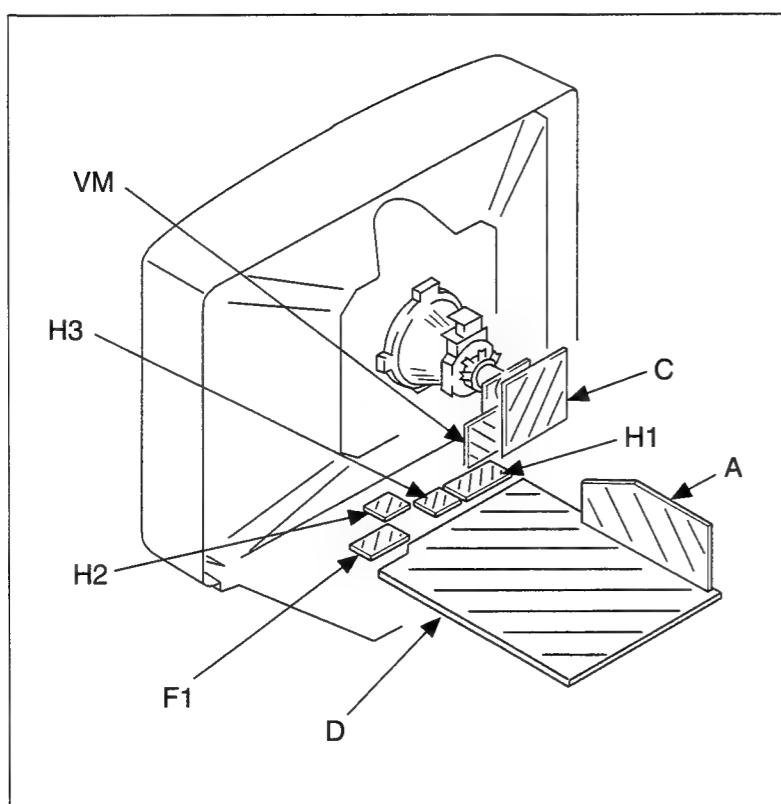
5-1. BLOCK DIAGRAM







5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	RN	: METAL-FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

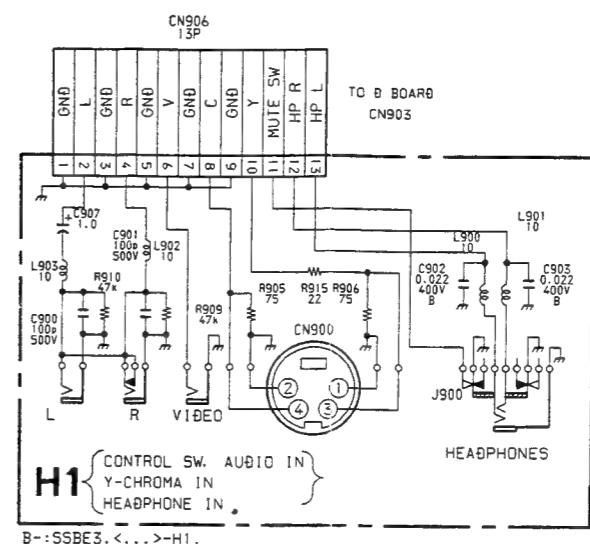
- All capacitors are in μ F unless otherwise noted.
PF: $\mu\mu$ F 50V or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm
 Rating electrical power : $1/4$ W

- Chip resistor is in $1/10$ W.
- All resistors are in ohms.
 $k\Omega = 1000\Omega$, $M\Omega = 1000K\Omega$
- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a $10M\Omega$ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B+ bus.
- : B- bus.
- : signal path.(RF)
- : earth - ground
- : earth - chassis

1 2 3 4 5 6

A



KV-C298

KV-C298

1 2 3 4 5 6

A

B

C

D

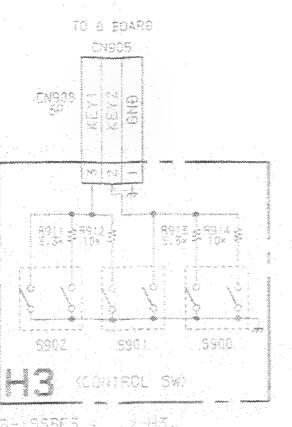
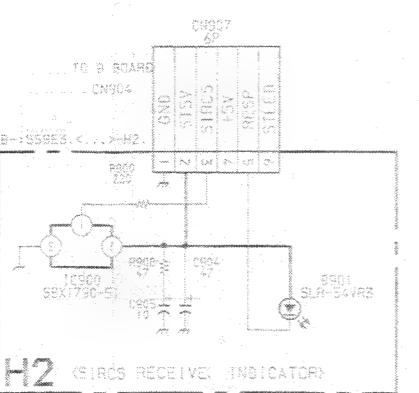
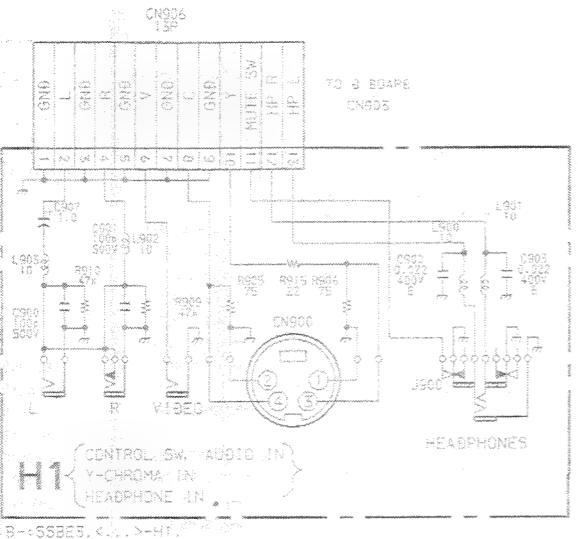
E

F

G

H

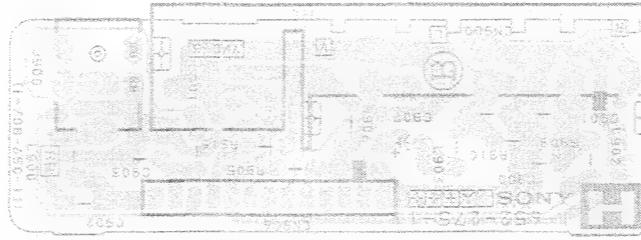
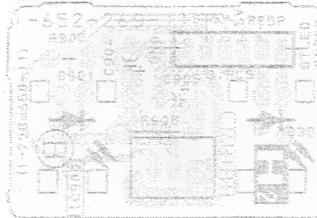
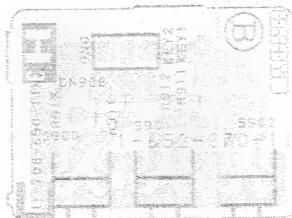
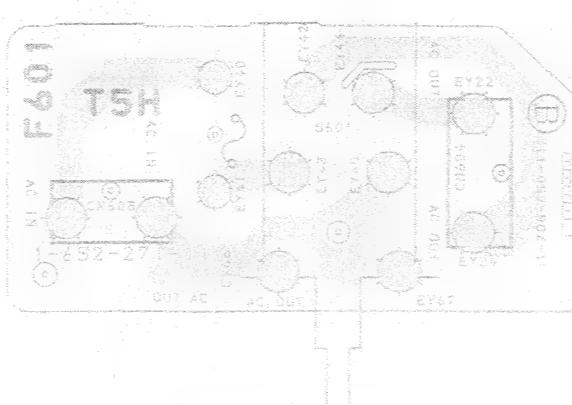
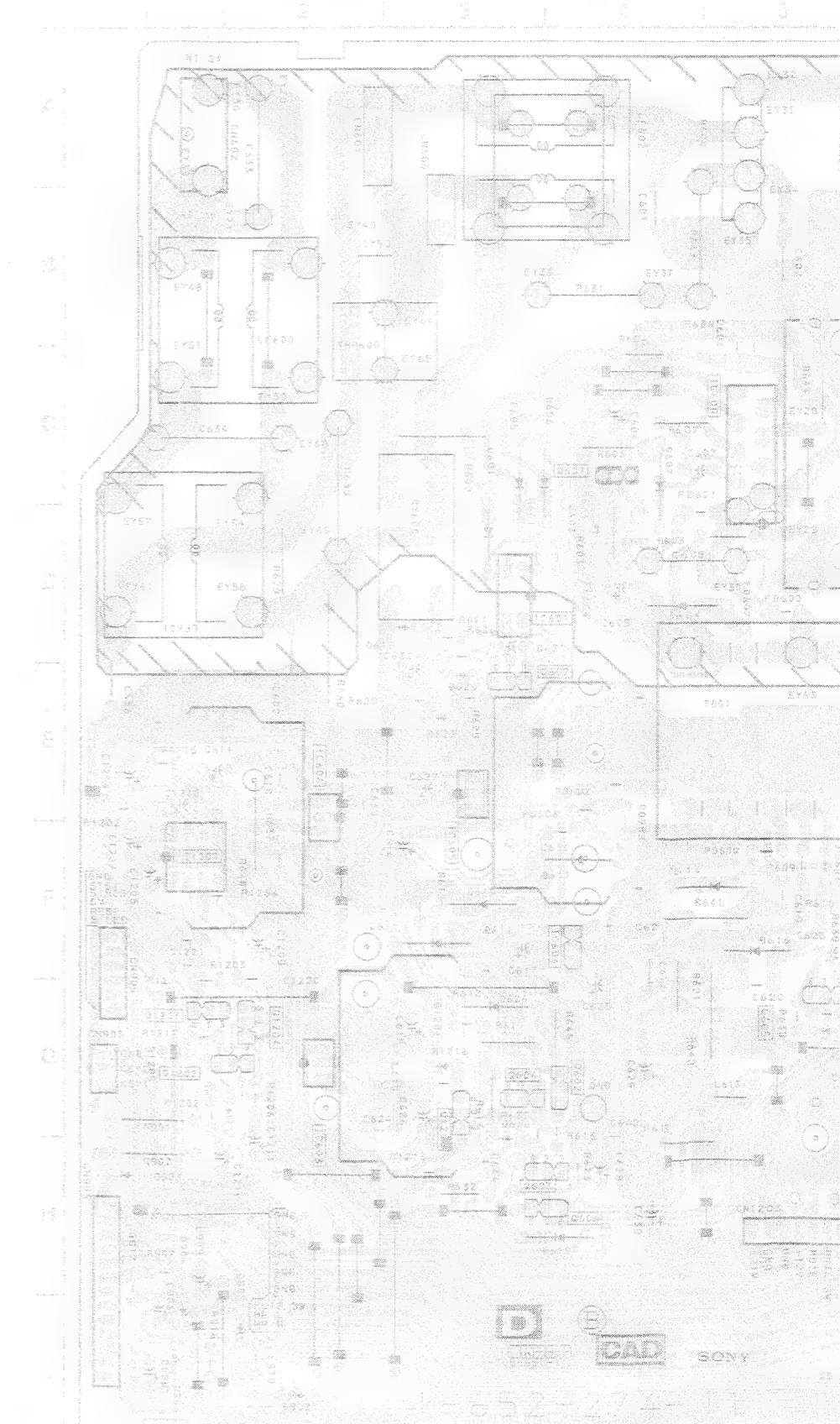
I

**H1**CONTROL SW, AUDIO IN
Y-CHROMA IN, HEADPHONE IN**H2**SIRCS RECEIVE
INDICATOR**H3**

CONTROL SW

F1

AC IN POWER SW

DHV OUT
PIN OUT
POWER**- H1 BOARD -****- H2 BOARD -****- H3 BOARD -****- F1 BOARD -****- D BOARD -**

2
SIRCS RECEIVE
INDICATOR

H3

CONTROL SW

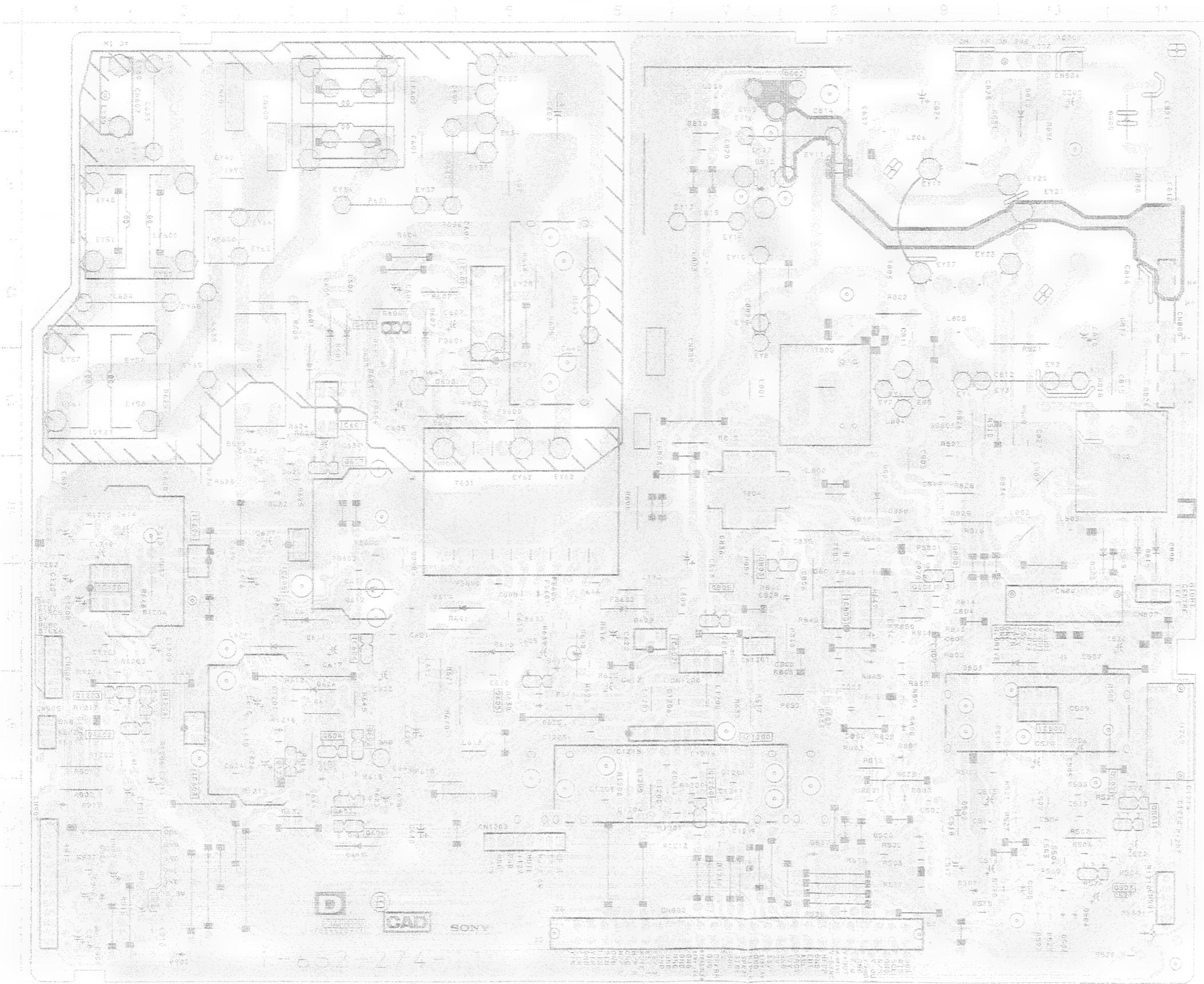
F1

AC IN POWER SW

D

HV OUT
PIN OUT
POWER SUPPLY

- D BOARD -

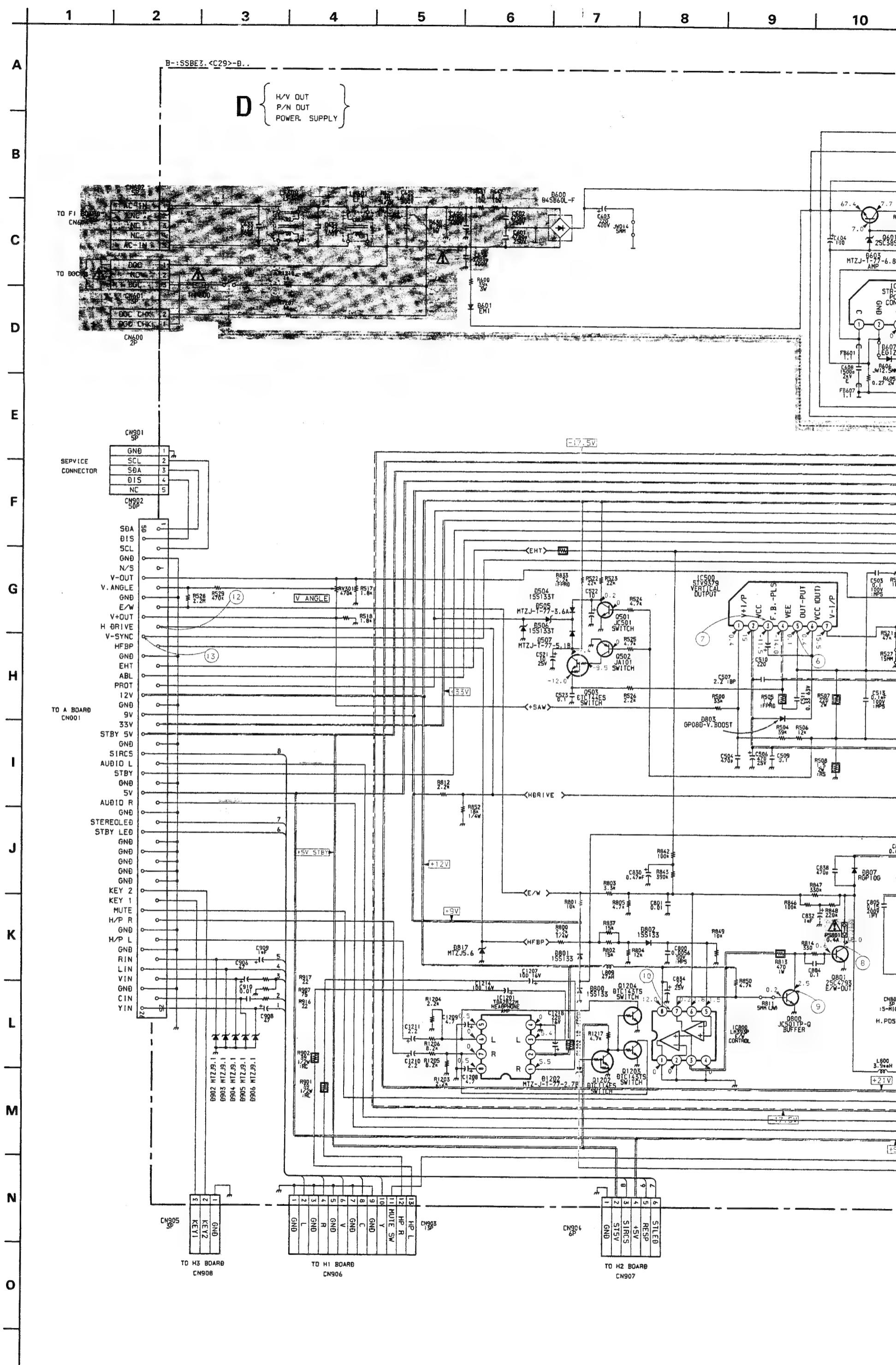


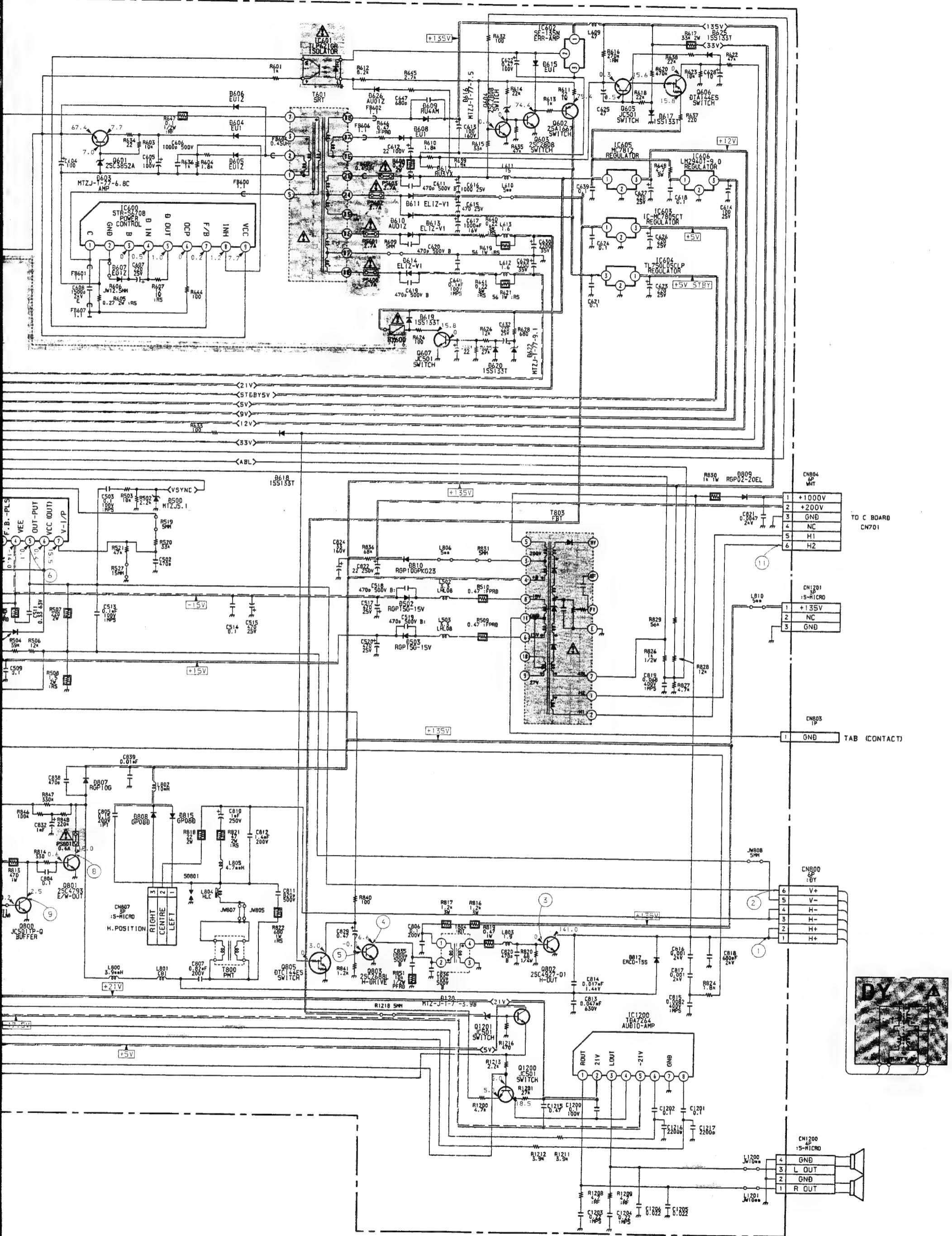
NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

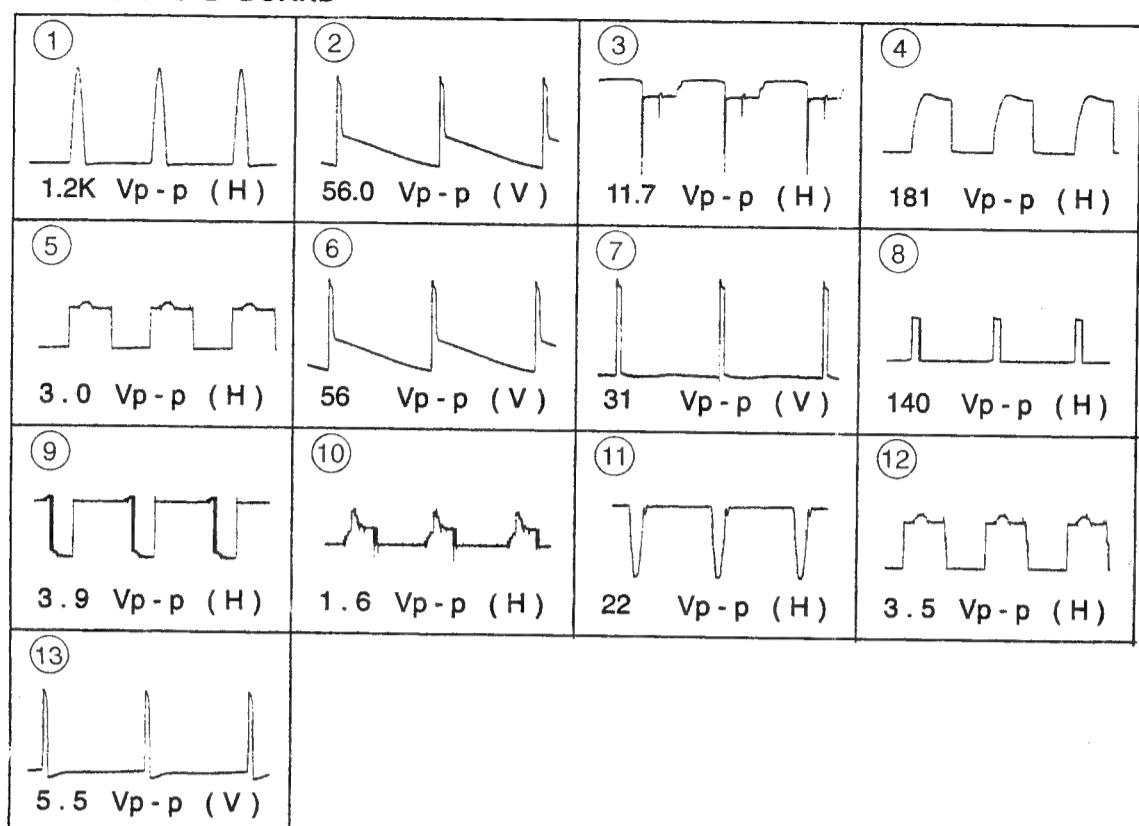


IC	
IC500	G - 10
IC600	C - 5
IC601	D - 4
IC602	F - 7
IC603	H - 2
IC604	F - 4
IC605	F - 3
IC606	E - 2
IC800	F - 8
IC1200	G - 7
IC1201	F - 1
TRANSISTOR	
Q501	H - 11
Q502	H - 11
Q503	I - 11
Q601	C - 4
Q602	G - 4
Q603	H - 3
Q604	G - 3
Q605	G - 5
Q606	H - 4
Q607	E - 4
Q800	E - 9
Q801	F - 9
Q802	A - 8
Q803	F - 7
Q805	F - 7
Q1200	H - 7
DIODE	
D500	G - 9
D502	G - 9
D503	F - 10
D504	I - 10
D505	I - 10
D506	I - 10
D507	G - 9

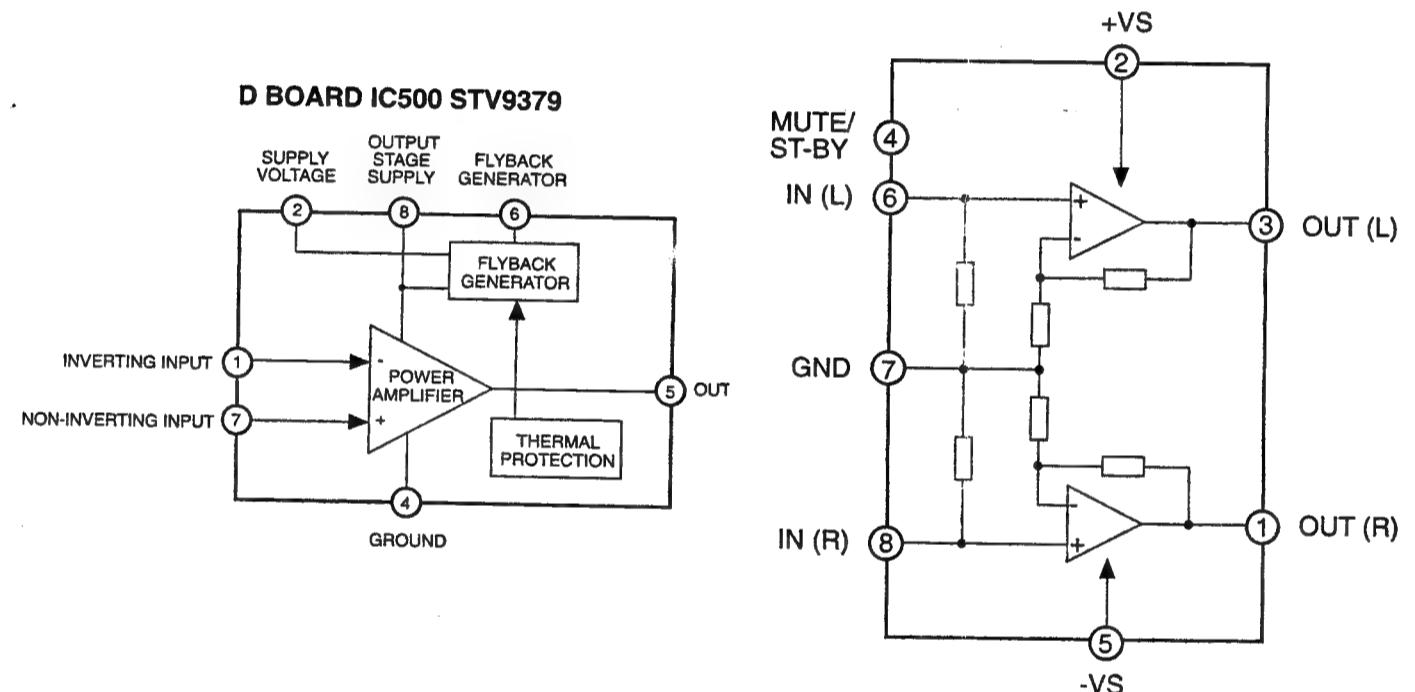




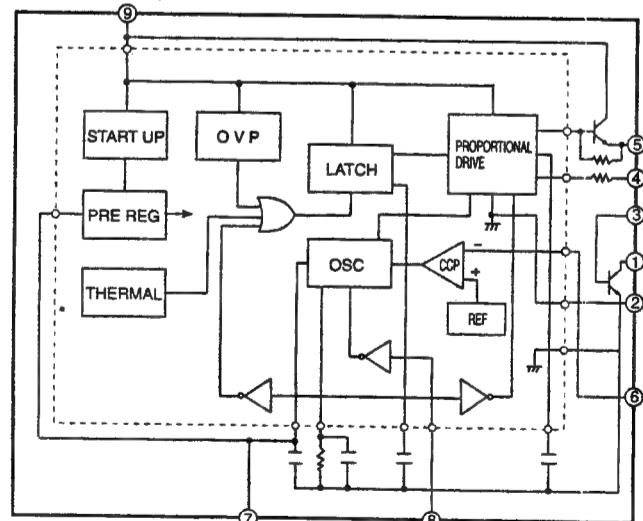
WAVEFORMS D BOARD



D BOARD IC1200 TDA7264



D BOARD IC600 STR-S6708



A

B

C

D

E

F

G

H

I

J

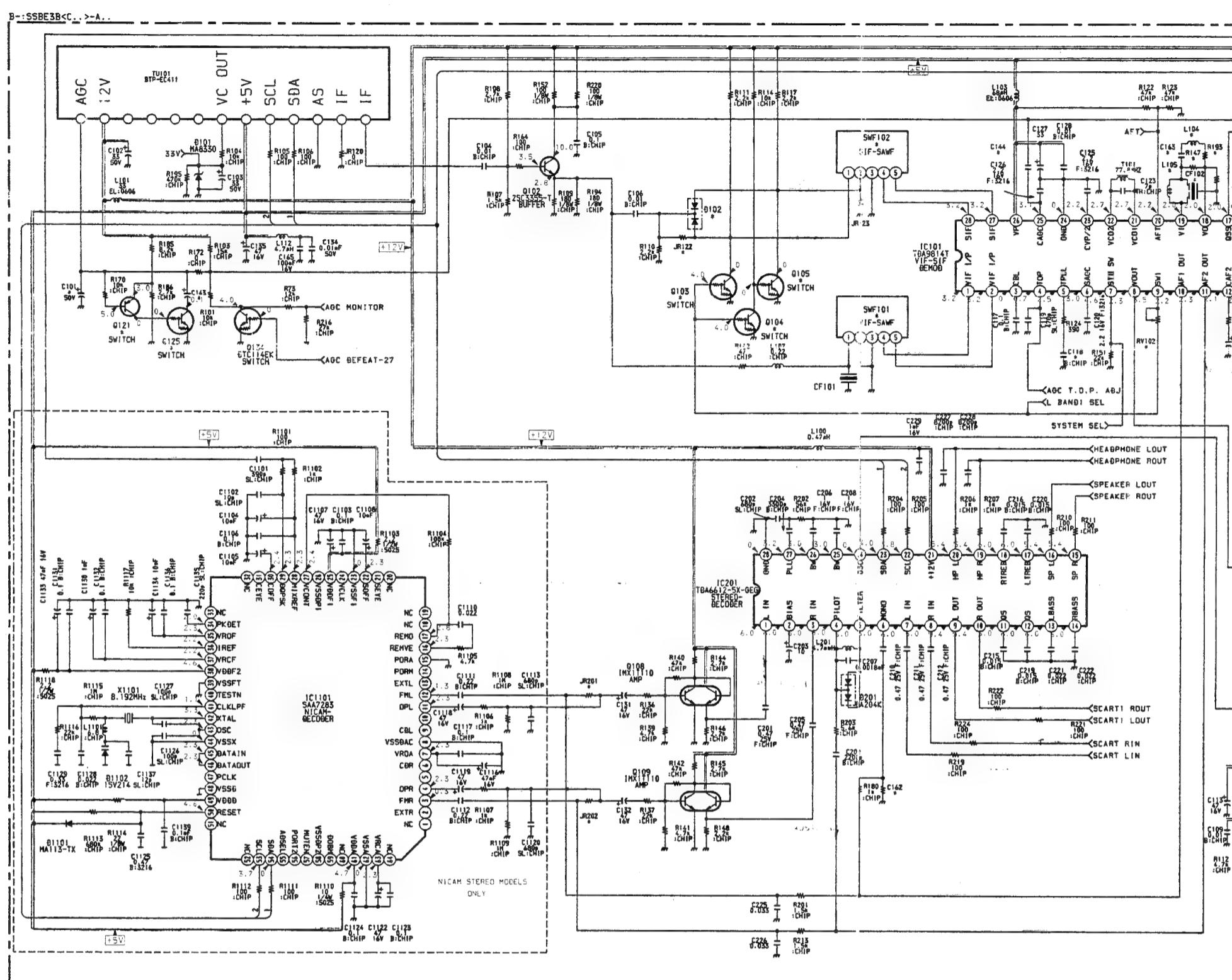
K

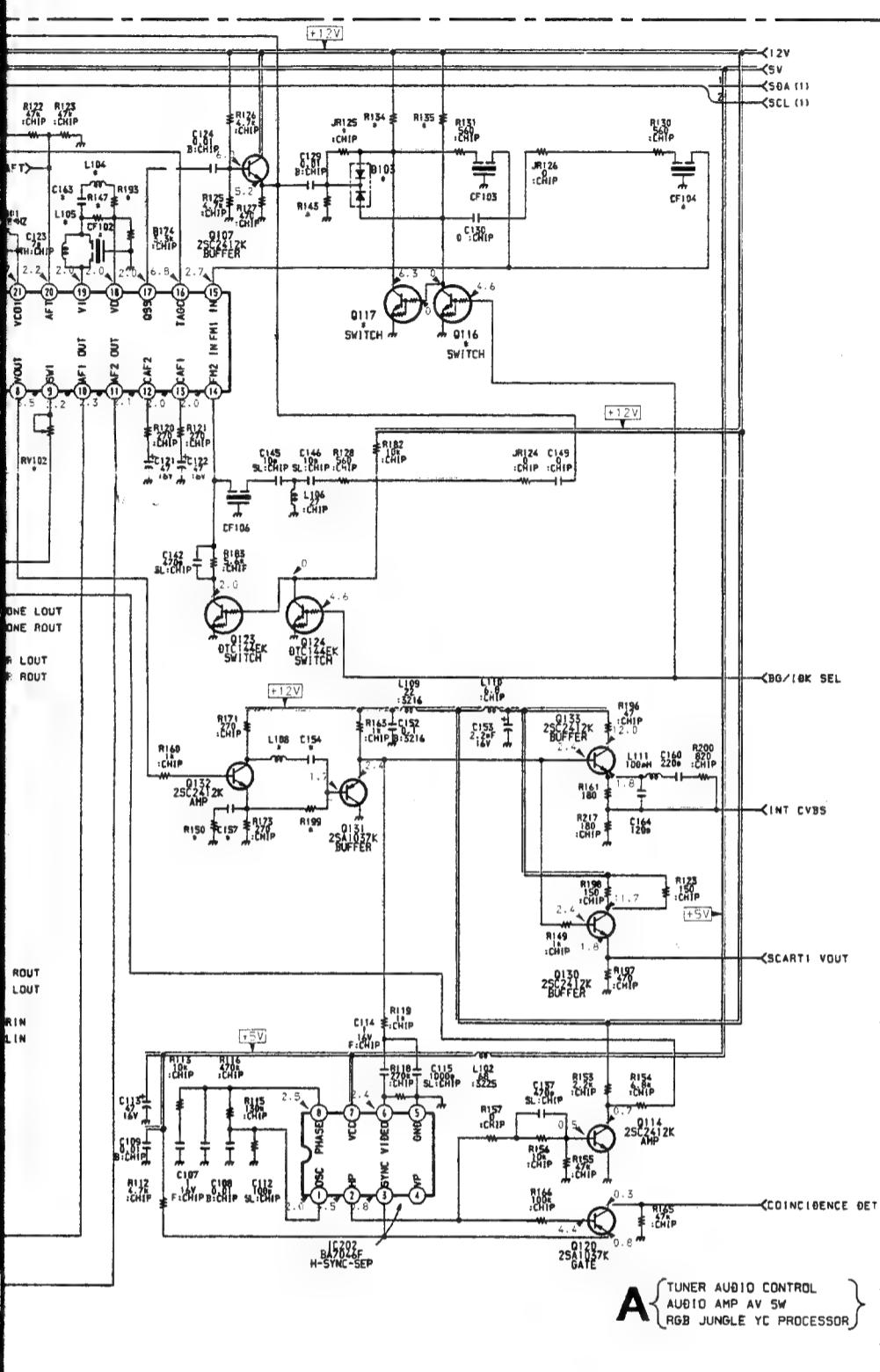
L

M

N

O

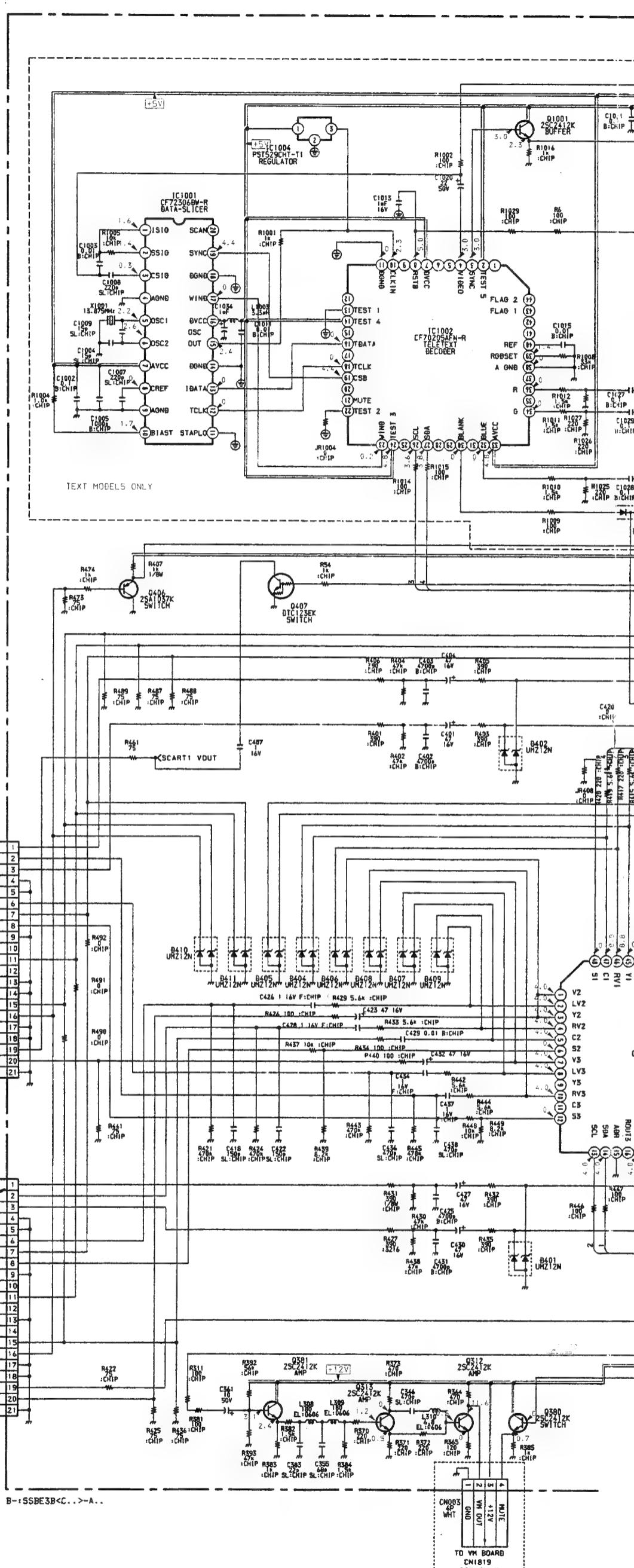


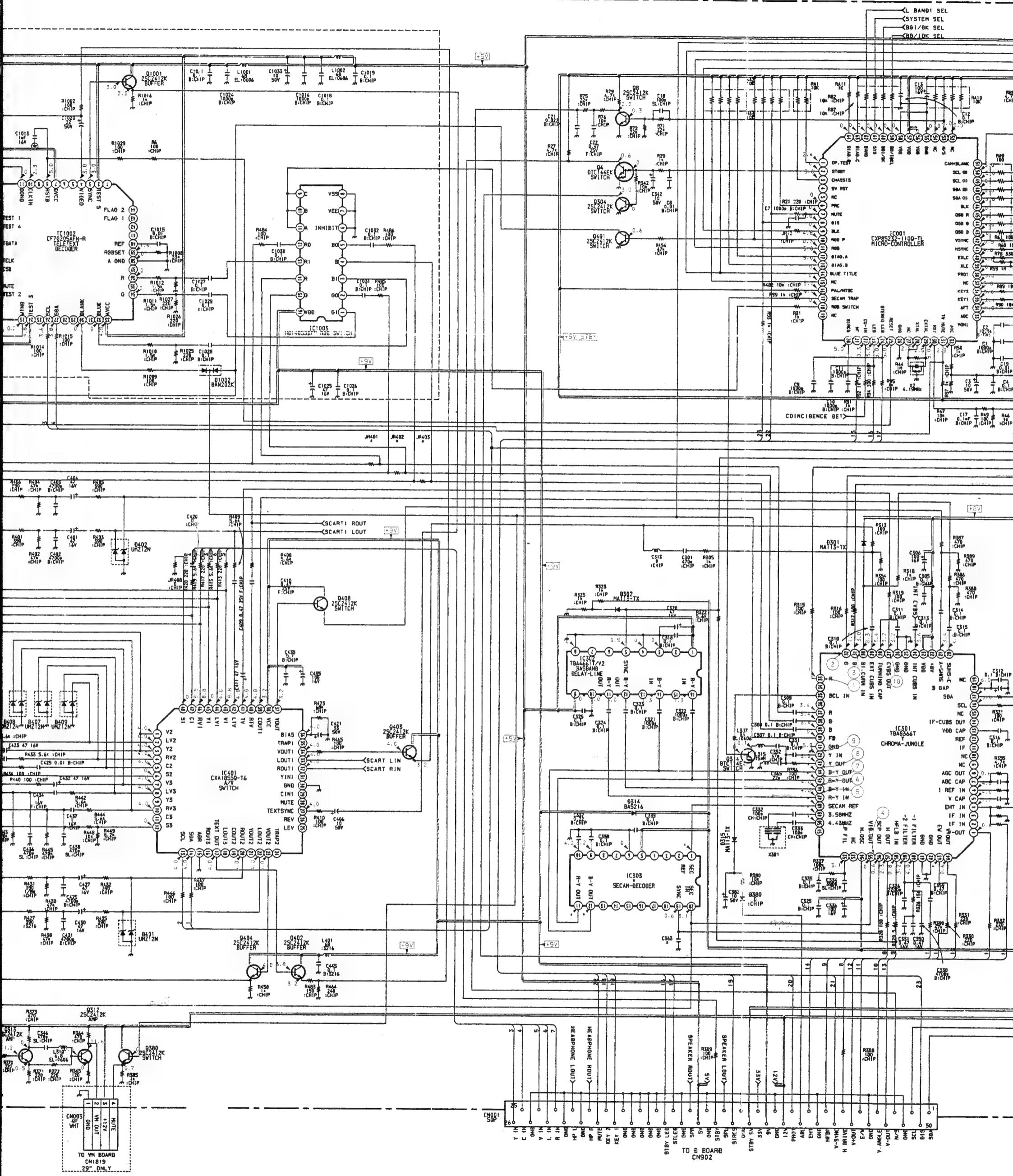


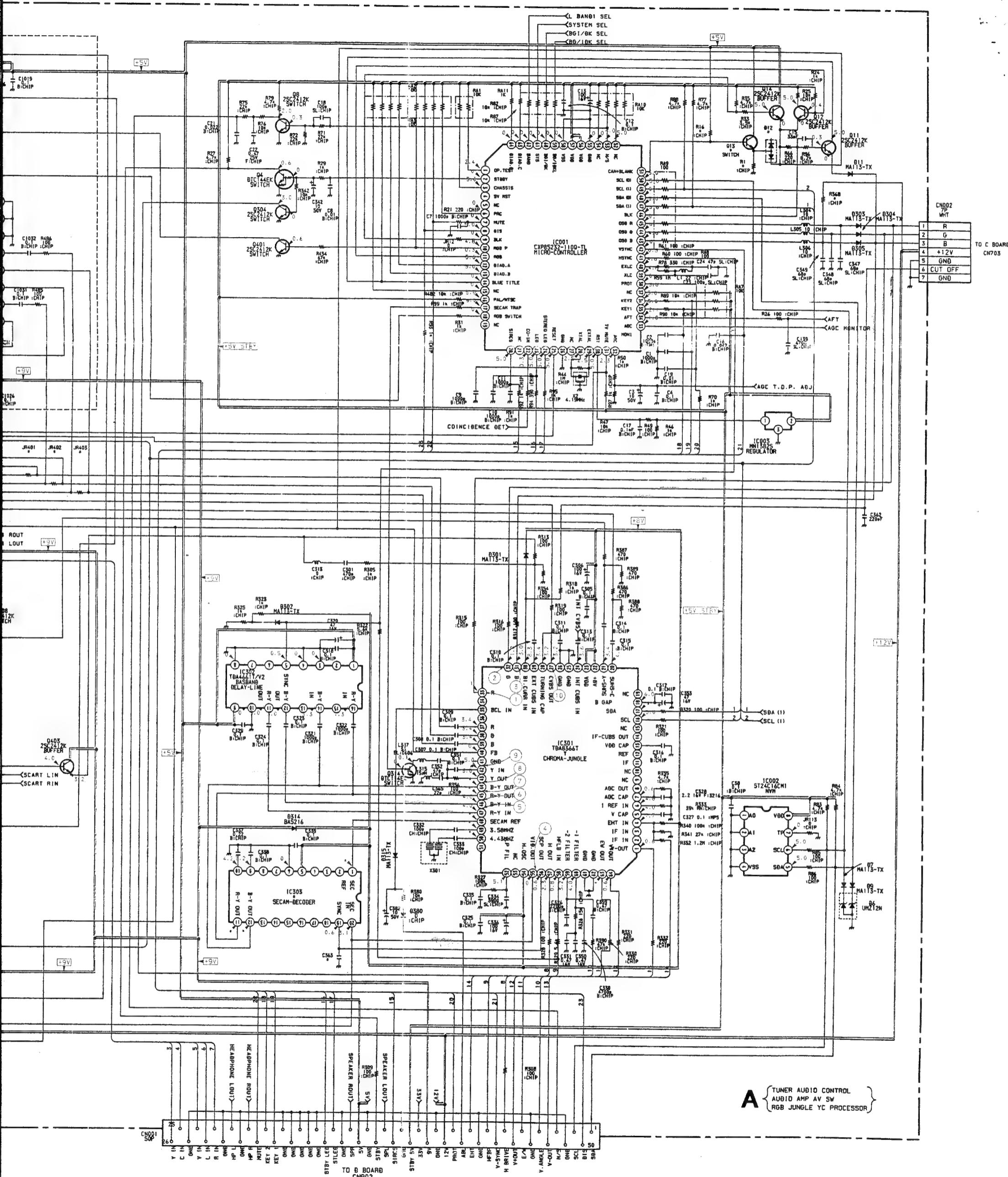
Voltages indicated with the mark \otimes on the schematic diagram are shown in the table below.

A BOARD

IC	Pin	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC301	17	4.0	4.0	4.0	0
	35	3.6	2.5	3.5	3.5
	44	1.5	3.1	1.5	1.5
	45	1.5	3.0	1.5	1.5
	48	1.7	4.4	1.6	1.7
	49	1.4	1.4	2.0	1.4
	50	2.0	2.0	1.4	2.0
	63	3.4	2.5	2.2	2.5
IC303	1	1.7	4.4	1.6	1.7
	11	1.5	3.0	1.5	1.5
	12	1.5	3.1	1.5	1.5

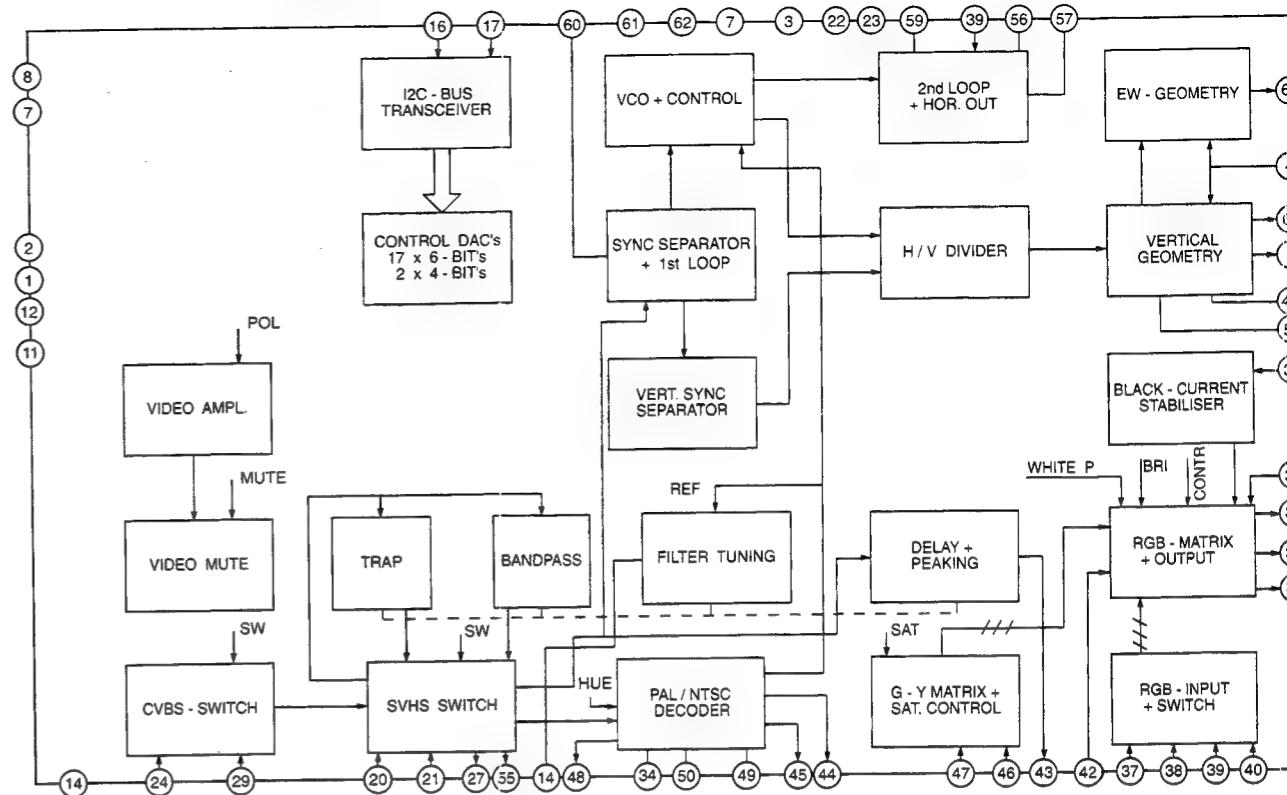
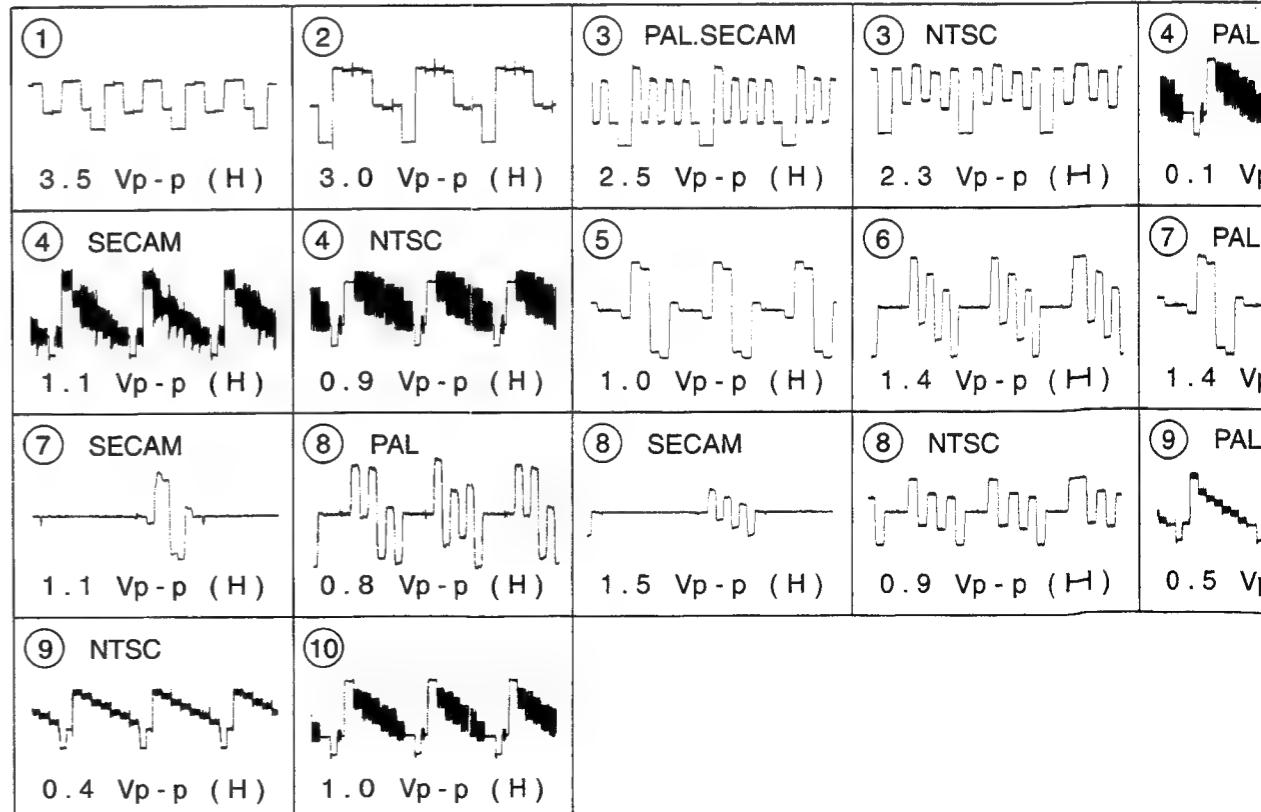






A BOARD * MARK

Model	C2981A	C2980B	C2981D	C2983E
C101	22MF	4.7MF	22MF	22MF
C118	0.1MF	0.22MF	0.22MF	0.1MF
C143	-	1MF	-	-
C144	-	100MF	-	-
C154	180PF	33PF	180PF	180PF
C157	-	68PF	-	-
C162	-	0.012MF	-	-
C163	-	0.001MF	-	-
C363	-	22PF	22PF	-
CF104	-	6.0 MHz	6.5MHz	-
D12	-	MA715-TX	-	-
D102	-	DAN202K	-	-
D103	-	DAN202K	DAN202K	-
IC303	-	TDA8395T	TDA8395T	-
JR122	0	-	0	0
JR123	0	-	0	0
JR125	0	-	-	0
JR201	0	-	0	-
JR202	0	-	0	-
JR401	-	0	-	-
JR402	-	0	-	-
JR403	-	0	-	-
L104	-	100UH	-	-
L105	15UH	5.5UH	15UH	15UH
L108	8.2UH	27UH	8.2UH	8.2UH
Q13	-	2SC2412K	-	-
Q103	-	DTC114EK	-	-
Q104	-	DTC114EK	-	-
Q105	-	DTC114EK	-	-
Q116	-	DTC114EK	DTC114EK	-
Q117	-	DTC114EK	DTC114EK	-
Q121	-	2SA1162-G	-	-
Q125	-	DTC114EK	-	-
R1	-	1K	-	-
R16	-	1K	-	-
R134	-	2.2K	2.2K	-
R135	-	2.2K	2.2K	-
R143	-	2.2K	2.2K	-
R147	220	180	220	220
R150	-	0	-	-
R193	-	1K	-	-
R199	390	1.2K	390	390
R368	6.8K	-	6.8K	6.8K
RV102	-	22K	-	-
SWF102	1-760-329-11	1-760-244-21	1-760-329-11	1-760-329-11

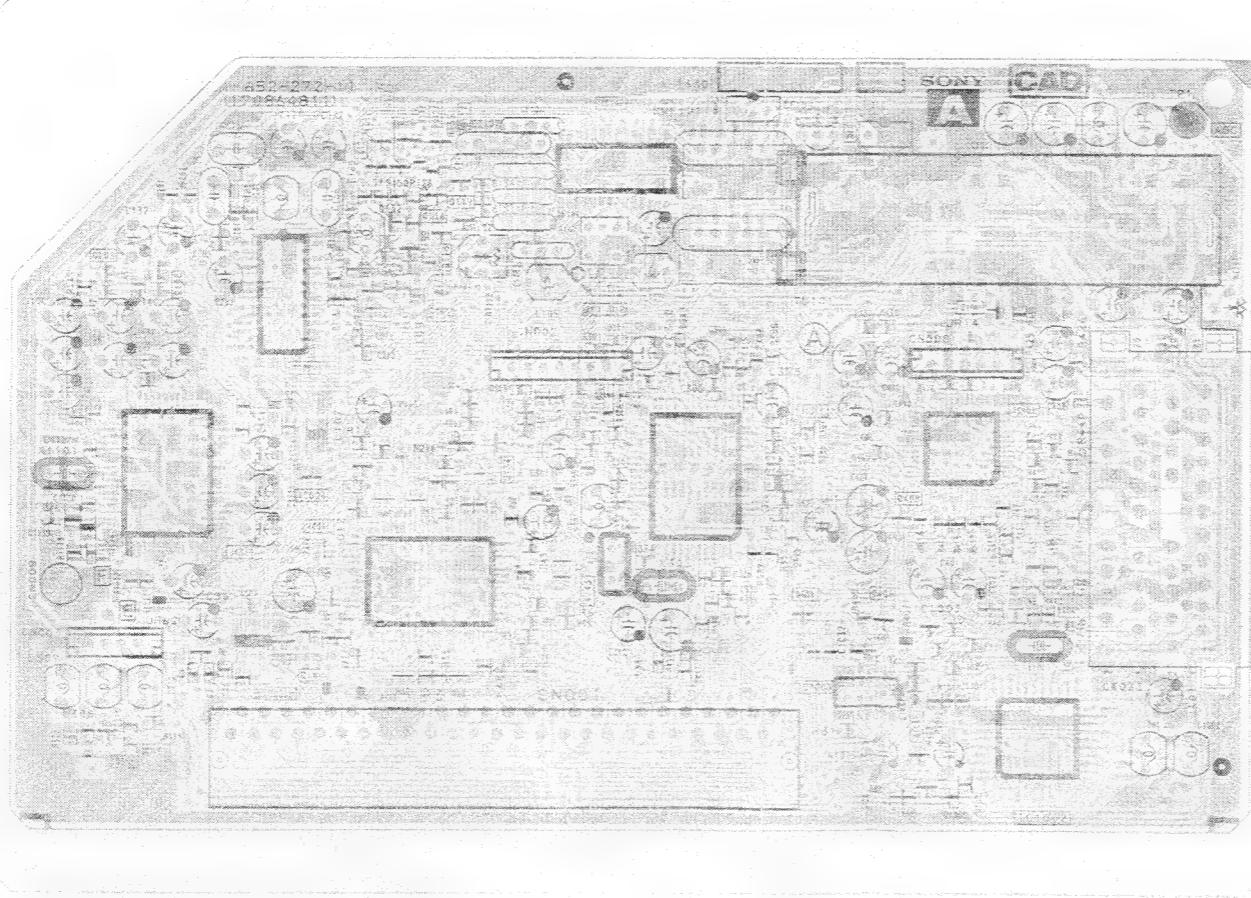
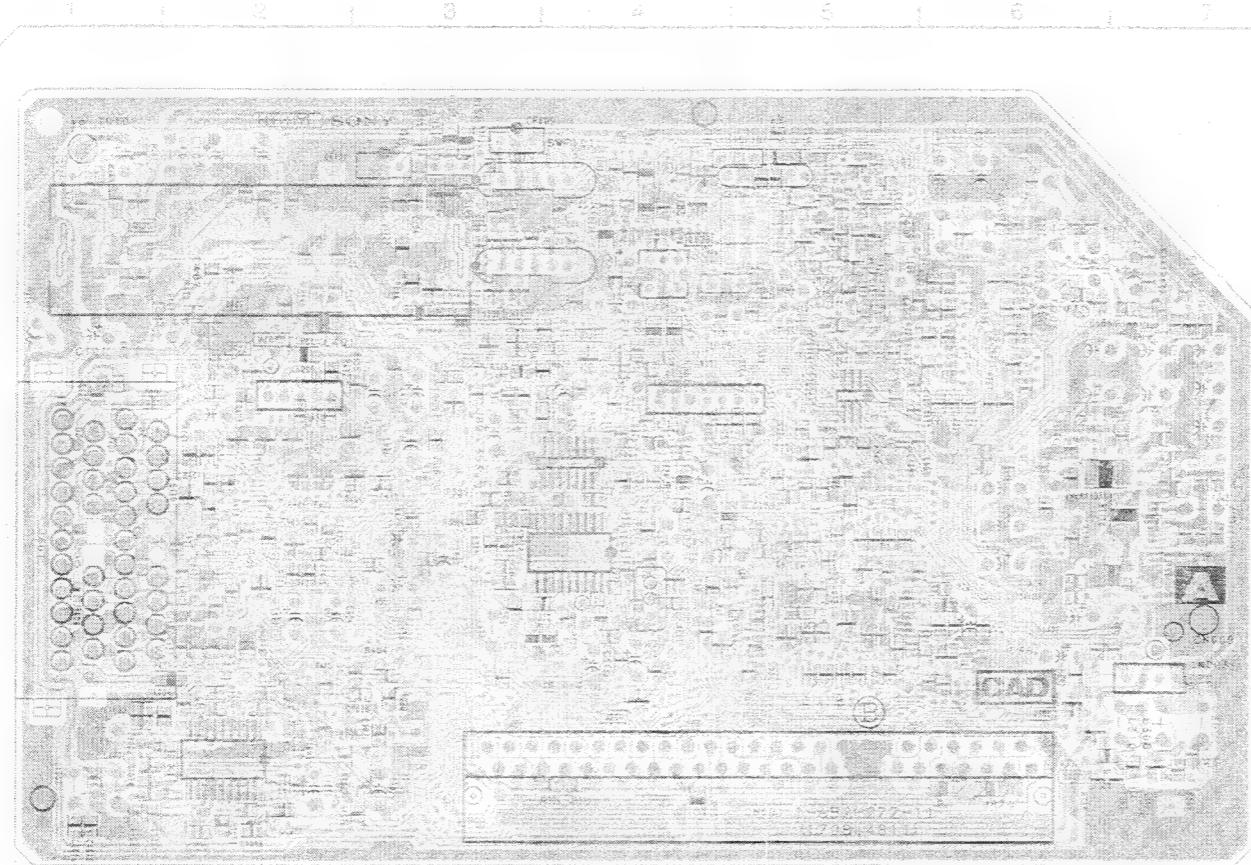
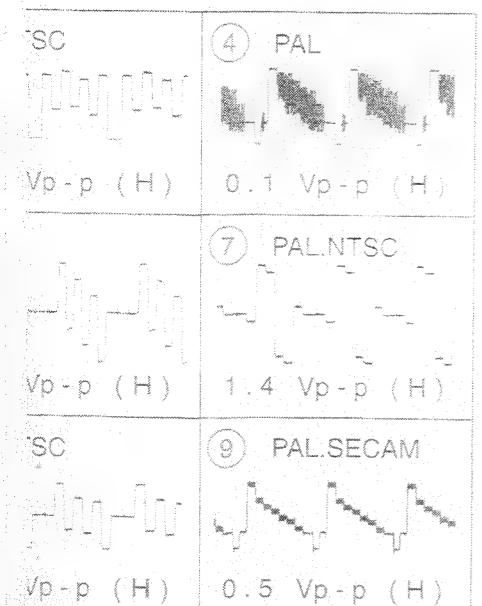
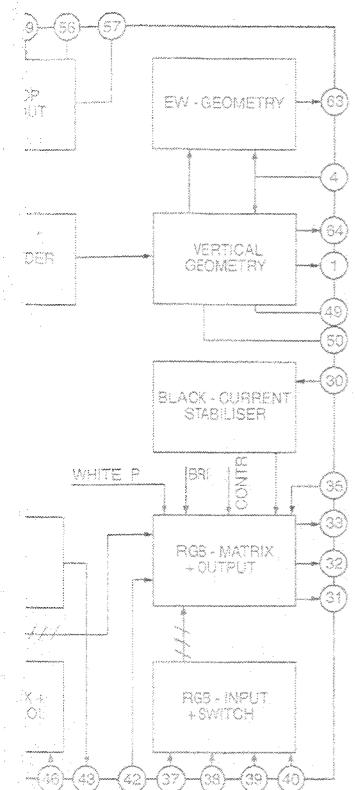
A BOARD IC301 TDA8366T**WAVEFORMS A BOARD**

A TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR

KV-C298

KV-C298

- A BOARD -

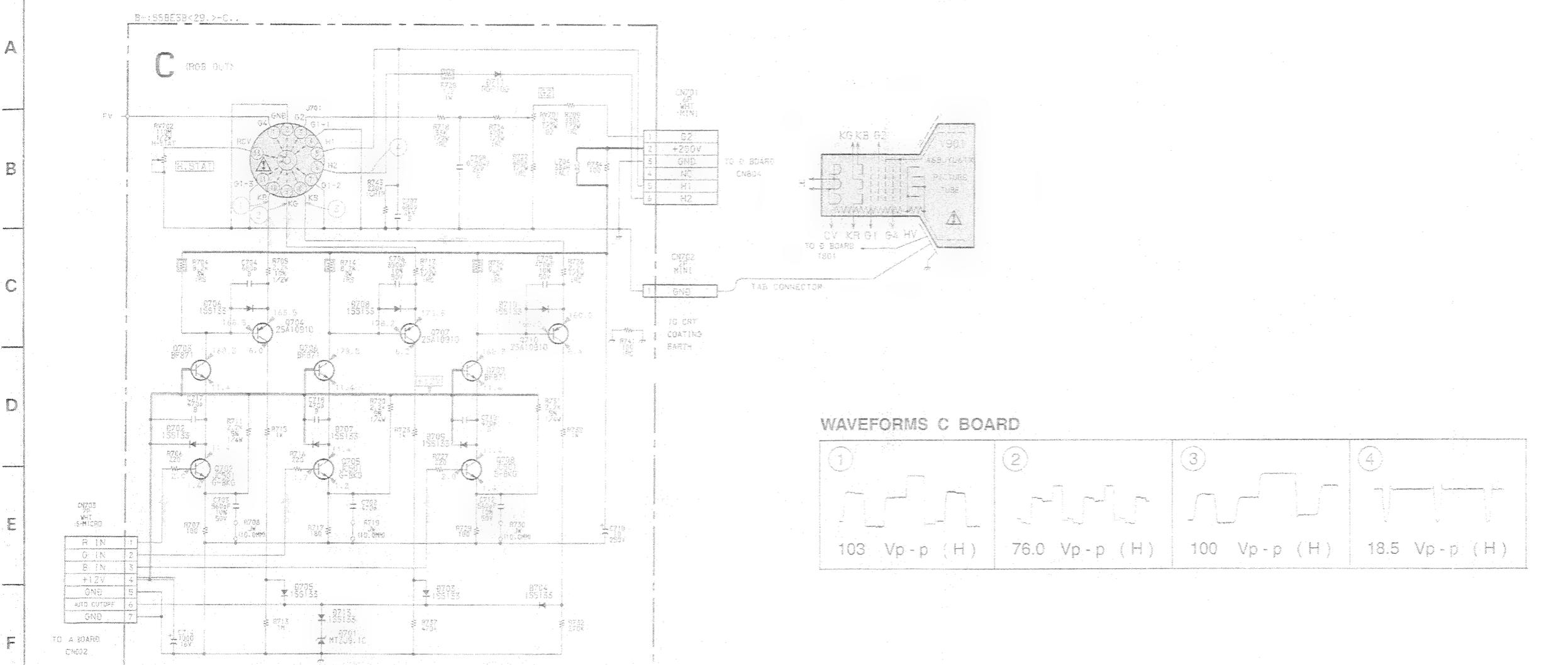


IC	
Q313	J - 1
Q314	C - 4
Q380	D - 6
Q381	D - 6
Q401	I - 5
Q402	B - 2
Q403	B - 3
Q404	G - 6
Q1001	I - 6
Q1003	J - 5
DIODE	
D6	I - 2
D7	I - 2
D9	I - 2
D11	D - 5
D101	B - 2
D102	B - 4
D103	A - 5
D201	B - 6
D301	G - 4
D302	C - 4
D303	H - 3
D304	B - 5
D305	C - 4
D314	B - 3
D380	I - 4
D401	C - 2
D402	C - 2
D404	C - 2
D405	C - 2
D406	C - 2
D407	C - 2
Q114	G - 3
Q116	G - 3
Q117	F - 3
Q120	C - 5
Q121	A - 1
Q123	B - 4
Q124	F - 3
Q125	B - 1
Q130	B - 3
Q131	G - 3
Q132	G - 3
Q133	B - 4
Q304	D - 4
Q312	E - 7

Note:

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

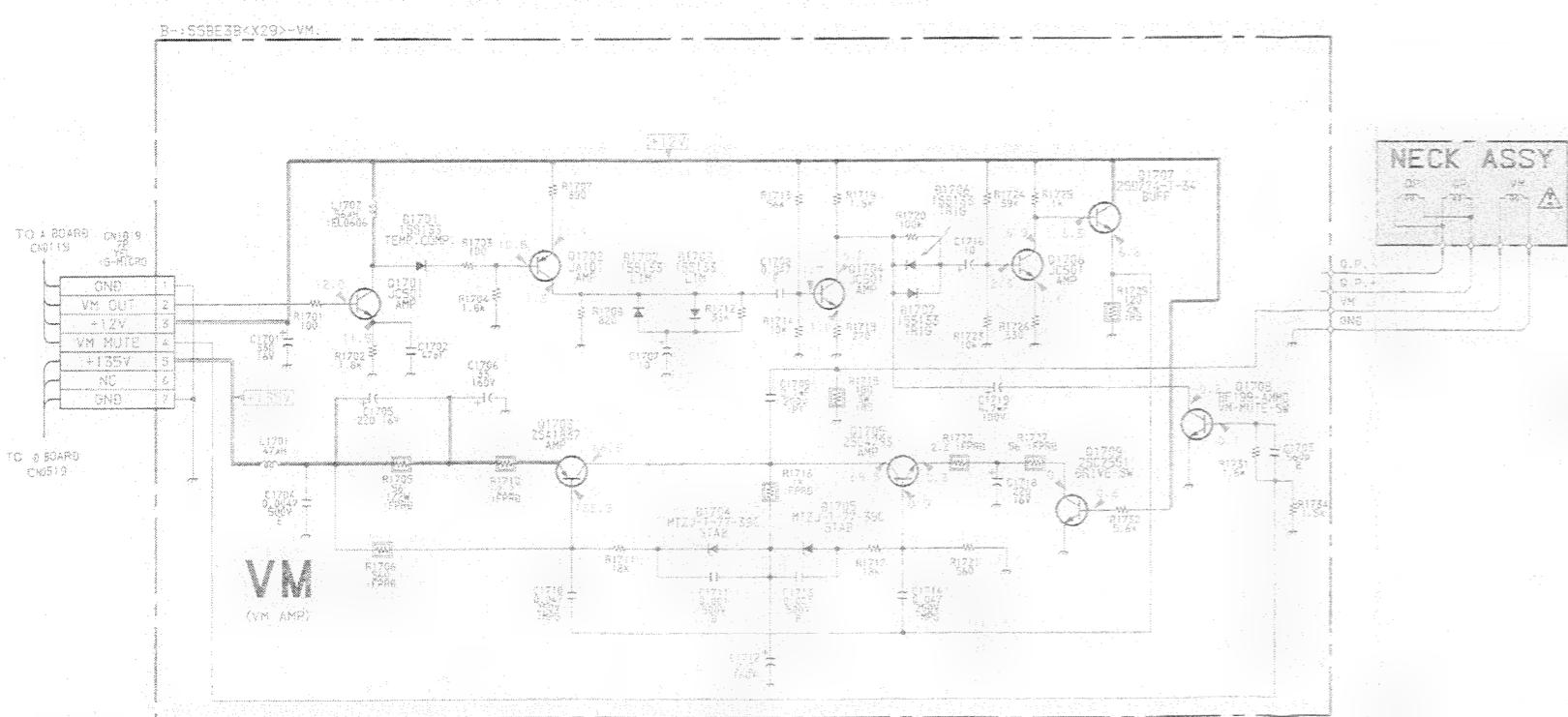
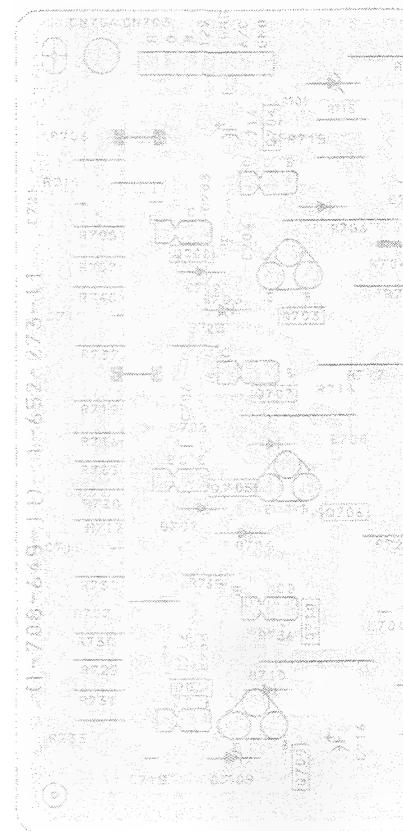
1 2 3 4 5 6 7 8 9 10 11 12 13



C
[RGB OUT]

VM

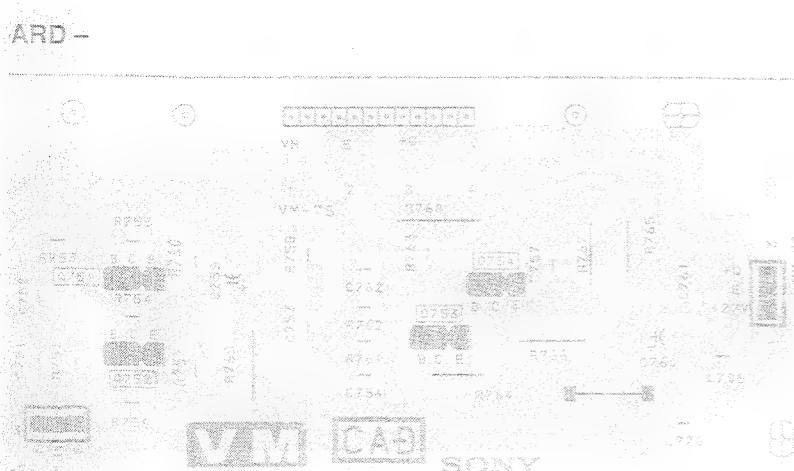
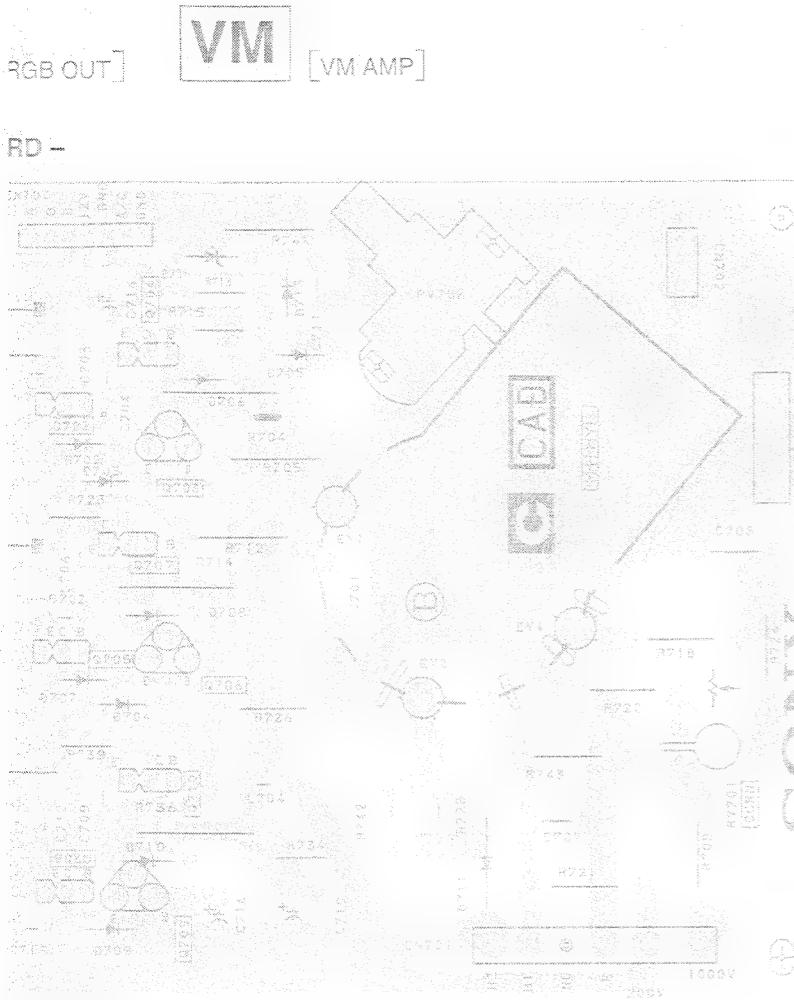
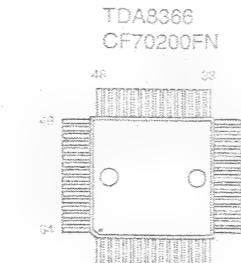
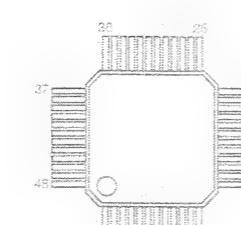
- C BOARD -



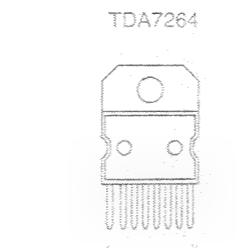
- VM BOARD -



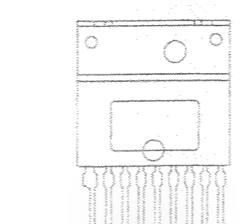
5.4 SEMICONDUCTORS

TDA8366
CF70200FNCXA1855Q
SAA7283
CXP85232LM393
TDA7264

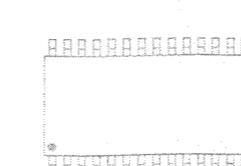
(TOP VIEW)



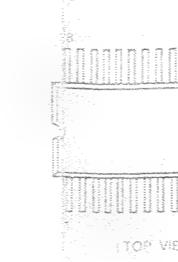
STRS6708



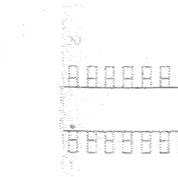
TDA6622



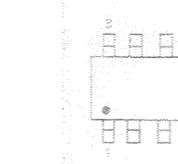
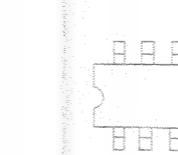
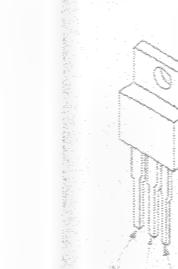
TDA9814



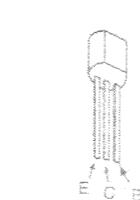
CF72306DW



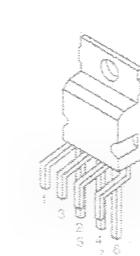
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BA7046
TDA2822MC7812
MC7805CT
LM2940T
SE135N

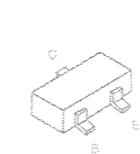
MC14053BF

2SA10910
2SC2551-0
JA101
JC501TP

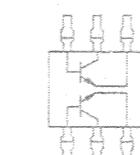
STV9379



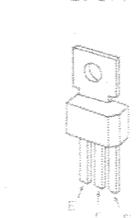
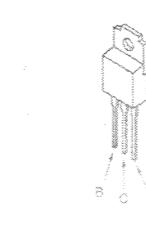
TDA4661/V2

DTC144EK
DTA144EK
2SC2412K
2SA1037-G

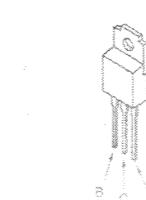
1MX1T110



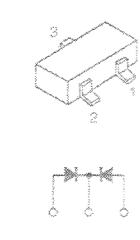
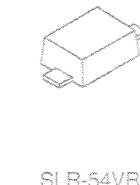
BF871

2SA1837
2SC4793

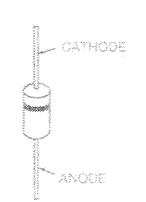
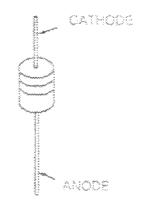
2SC4927-01



UMZ12N

MA8039
MA113

SLR-54VR3

RGP10GPKG23
RGP15GPKG23
GP08DPKG23
RU-4AM
EL1Z
EU-1-V1
EU-1-ZV1MTZJ-9.1C
MTZJ-5.1B
MTZJ-9.1
MTZJ-3.6A
MTZJ-6.8C
MTZJ-39C
1SS133

MA704WK



DTZ3.6A



ANODE

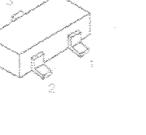
CATHODE

NC

1

3

DA204K



3

2

SECTION 6

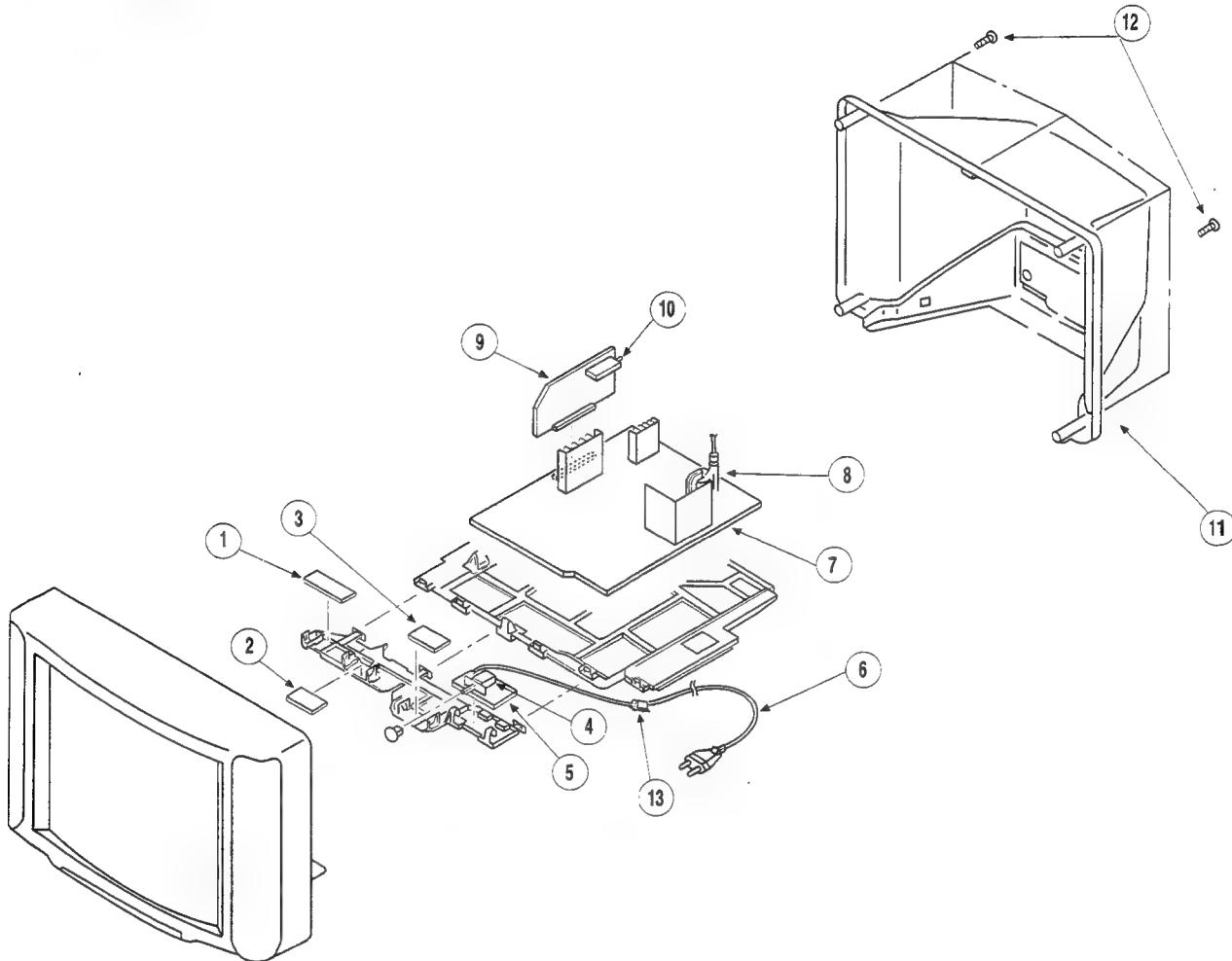
EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.

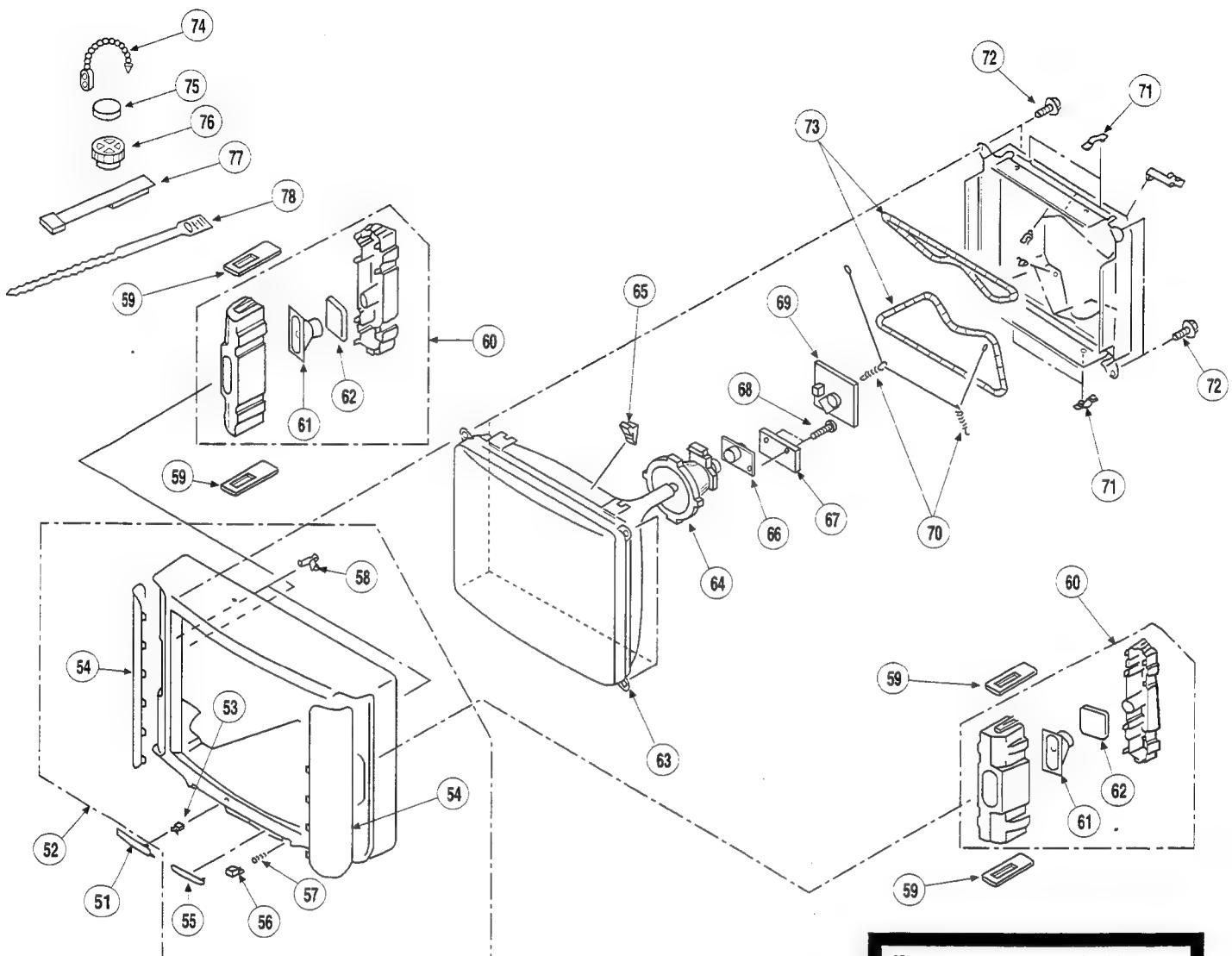
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked ! are critical for safety. Replace only with the part number specified.

6-1. CHASSIS


REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	*1-652-275-11	H1 BOARD		7	*A-1642-125-A	D BOARD, COMPLETE	
2	*1-652-270-11	H3 BOARD		8	△ 1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)	
3	*1-652-269-11	H2 BOARD		9	*A-1632-224-A	A BOARD, COMPLETE (KV-C2981A)	
4	△ 1-571-433-11	SWITCH, PUSH (AC POWER)		*A-1632-213-A	A BOARD, COMPLETE (KV-C2980B)		
5	*1-652-271-12	F1 BOARD		*A-1632-216-A	A BOARD, COMPLETE (KV-C2981D)		
6	△ 1-751-680-11	CORD, POWER (WITH NOISE FILTER) (KV-C2981A/C2981D)		*A-1632-232-A	A BOARD, COMPLETE (KV-C2983E)		
	△ 1-590-460-11	CORD, POWER (WITH CONNECTOR) (KV-C2980B/C2983E)		10	8-598-045-01	TUNER (BTP-EC411)	
				11	4-202-769-01	COVER, REAR	
				12	4-039-358-01	SCREW +BVT P 4X16	
				13	△ 4-389-201-11	HOLDER, AC CORD	

6-2. PICTURE TUBE



The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
51	4-200-990-51	DOOR		65	3-704-495-01	SPACER, DY	
52	X-4200-167-1	BEZNET ASSY		66	1-452-509-41	Δ NECK ASSY, CRT (NA-308)	
53	4-392-036-01	CATCHER, PUSH	54-58	67	*A-1644-052-A	VM BOARD, COMPLETE	
54	X-4200-099-1	PLATE ASSY, ORNAMENTAL		68	4-039-357-01	SCREW (3X8), (+) BV TAPPING	
55	4-202-774-01	WINDOW, ORNAMENTAL		69	*A-1638-053-A	C BOARD, COMPLETE	
56	4-200-991-11	BUTTON, POWER		70	4-369-318-51	SPRING, TENSION	
57	4-392-112-41	SPRING		71	4-034-296-01	HOLDER, DGC	
58	4-200-992-01	CLIP, CONTACT		72	4-036-188-01	SCREW (M), PT	
59	4-202-307-02	CUSHION, BOX		73	Δ 1-402-747-21	COIL, DEGAUSSING	
60	A-1678-048-A	BOX ASSY		74	4-308-870-00	CLIP, LEAD WIRE	
61	1-504-146-11	SPEAKER (5X11CM)		75	1-452-032-00	MAGNET, DISK; 10MMØ	
62	4-200-999-01	STOPPER		76	1-452-094-00	MAGNET, ROTATABLE DISK; 15MMØ	
63	Δ 8-733-831-05	PICTURE TUBE SD-191 (A68JYL61X)		77	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
64	Δ 8-451-313-61	DEFLECTION YOKE (Y29FXA)		78	3-701-007-00	BAND BINDING	

ELECTRICAL PARTS LIST

SECTION 7

The components identified by shading and marked ***** are critical for safety.
Replace only with the part number specified.

- Items marked ***** are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

CAPACITORS

COILS

MF : mF, PF : mmF

MMH : mH, μ H : μ H

F1 **A**

RESISTORS

- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-652-271-11	F1 BOARD *****		C23	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
		< CONNECTOR >		C24	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
CN603 A	*1-580-844-11	PIN, CONNECTOR (POWER)		C30	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
CN604 A	*1-695-292-11	PIN, CONNECTOR (POWER)		C101	1-124-916-11	ELECT 22MF	20% 50V
		< FUSE >			1-124-927-11	ELECT 4.7MF	20% 50V
F601 A	1-576-232-21	FUSE (H.B.C.) 5A/250V					(KV-C2981A/C2981I/C2983E)
	1-533-230-11	HOLDER, FUSE (F601)		C102	1-124-917-11	ELECT 33MF	20% 50V
	4-201-057-01	COVER, FUSE (F601)		C103	1-124-917-11	ELECT 33MF	20% 50V
		< SWITCH >		C104	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
S601 A	1-571-433-11	SWITCH, PUSH (AC POWER)		C105	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
		*****		C106	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-224-A	A BOARD, COMPLETE (KV-C2981A) *****		C107	1-164-346-11	CERAMIC CHIP 1MF	16V
	*A-1632-213-A	A BOARD, COMPLETE (KV-C2980B) *****		C108	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-216-A	A BOARD, COMPLETE (KV-C2981D) *****		C109	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	*A-1632-232-A	A BOARD, COMPLETE (KV-C2983E) *****		C112	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C113	1-124-477-11	ELECT 47MF	20% 16V
				C114	1-164-346-11	CERAMIC CHIP 1MF	16V
				C115	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
				C117	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C118	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
					1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
							(KV-C2981E/C2983E)
							(KV-C2980E/C2981D)
TP1	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		C119	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
		< CAPACITOR >		C120	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C1	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C121	1-124-477-11	ELECT 47MF	20% 16V
C2	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C122	1-124-477-11	ELECT 47MF	20% 16V
C3	1-124-907-11	ELECT 10MF	20% 50V	C123	1-163-090-00	CERAMIC CHIP 7PF	0.15PF 50V
C4	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C124	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C7	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C125	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C8	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C126	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C9	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C127	1-124-917-11	ELECT 33MF	20% 50V
C10	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C128	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C11	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C129	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C12	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C130	1-216-295-91	METAL GLAZE 0	5% 110W
C13	1-126-101-11	ELECT 100MF	20% 16V	C131	1-124-477-11	ELECT 47MF	20% 16V
C15	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C132	1-124-477-11	ELECT 47MF	20% 16V
C16	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C134	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C17	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C135	1-124-477-11	ELECT 47MF	20% 16V
C18	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C137	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C19	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C139	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C21	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C142	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C22	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C143	1-126-101-11	ELECT 100MF	20% 16V
							(KV-C2980B)

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C144	1-162-638-11	CERAMIC CHIP 1MF	16V (KV-C2980B)	C324	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C145	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C325	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C146	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	C326	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C149	1-216-295-91	METAL GLAZE 0	5% 1/10W	C327	1-136-165-00	FILM 0.1MF	5% 50V
C152	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C328	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C153	1-164-337-11	CERAMIC CHIP 2.2MF	16V	C329	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C154	1-163-123-00	CERAMIC CHIP 180PF	5% 50V (KV-C2981A/C2981D/C2983E)	C330	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
	1-163-105-00	CERAMIC CHIP 33PF	5% 50V (KV-C2980B)	C331	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V
				C332	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
				C333	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C157	1-163-113-00	CERAMIC CHIP 68PF	5% 50V (KV-C2980B)	C334	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V
C160	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C335	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C162	1-163-022-00	CERAMIC CHIP 0.012MF	10% 50V (KV-C2980B)	C336	1-126-101-11	ELECT 100MF	20% 16V
C163	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V (KV-C2980B)	C337	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
C164	1-163-119-00	CERAMIC CHIP 120PF	5% 50V	C338	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C165	1-126-101-11	ELECT 100MF	20% 16V	C339	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C201	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C342	1-124-907-11	ELECT 10MF	20% 50V
C202	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	C345	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C203	1-124-907-11	ELECT 10MF	20% 50V	C347	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C204	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C348	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C205	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C349	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C206	1-164-346-11	CERAMIC CHIP 1MF	16V	C350	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V
C207	1-137-613-11	FILM 0.0018MF	2% 100V	C351	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C208	1-164-346-11	CERAMIC CHIP 1MF	16V	C352	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C209	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C353	1-124-477-11	ELECT 47MF	20% 16V
C210	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C355	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C211	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C359	1-164-005-11	CERAMIC CHIP 0.47MF	10% 25V
				C361	1-124-907-11	ELECT 10MF	20% 50V
				C362	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
				C363	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
						(KV-C2980B/C2981D)	
C212	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C365	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C215	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V	C382	1-124-907-11	ELECT 10MF	20% 50V
C216	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C383	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C219	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V	C401	1-124-477-11	ELECT 47MF	20% 16V
C220	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C402	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C221	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C403	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C222	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C404	1-124-477-11	ELECT 47MF	20% 16V
C225	1-130-489-00	FILM 0.033MF	5% 50V	C406	1-124-907-11	ELECT 10MF	20% 50V
C226	1-130-489-00	FILM 0.033MF	5% 50V	C407	1-164-346-11	CERAMIC CHIP 1MF	16V
C227	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C409	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C228	1-163-020-00	CERAMIC CHIP 0.0082MF	10% 50V	C410	1-164-005-11	CERAMIC CHIP 0.47MF	10% 25V
C229	1-164-346-11	CERAMIC CHIP 1MF	16V	C411	1-124-477-11	ELECT 47MF	20% 16V
C301	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C418	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C305	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C420	1-216-295-91	METAL GLAZE 0	5% 1/10W
C306	1-126-101-11	ELECT 100MF	20% 16V	C421	1-124-917-11	ELECT 33MF	20% 50V
C307	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C422	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C308	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C423	1-124-477-11	ELECT 47MF	20% 16V
C309	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C425	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C310	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C426	1-164-346-11	CERAMIC CHIP 1MF	16V
C311	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C427	1-124-477-11	ELECT 47MF	20% 16V
C312	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C428	1-164-346-11	CERAMIC CHIP 1MF	16V
C313	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C429	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C314	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C430	1-124-477-11	ELECT 47MF	20% 16V
C315	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C431	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C316	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C432	1-124-477-11	ELECT 47MF	20% 16V
C318	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C433	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C320	1-124-477-11	ELECT 47MF	20% 16V	C434	1-164-346-11	CERAMIC CHIP 1MF	16V
C321	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C435	1-126-101-11	ELECT 100MF	20% 16V
C322	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C436	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C323	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C437	1-164-346-11	CERAMIC CHIP 1MF	16V

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK	
C438	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	C1130	1-124-903-11	ELECT 1MF	20% 50V
C445	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C1131	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
		< C1002 - C1034 FITTED ON >			C1132	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
		< KV-C2981A/C2981D/C2983E >			C1133	1-124-477-11	ELECT 47MF	20% 16V
					C1134	1-124-907-11	ELECT 10MF	20% 50V
C1002	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C1135	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C1003	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	C1136	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1004	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	C1137	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C1005	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	C1139	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1007	1-163-125-00	CERAMIC CHIP 220PF	5%	50V			< FILTER >	
C1008	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	CF101	1-760-154-21	TRAP, CERAMIC	
C1009	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	CF102	1-404-134-00	TRAP, CERAMIC (5.5MHZ)	
C1011	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	CF103	1-760-106-21	FILTER, CERAMIC	
C1013	1-164-346-11	CERAMIC CHIP 1MF		16V	CF104	1-567-100-00	FILTER, CERAMIC (KV-C2980B/C2981D)	
C1015	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	CF106	1-760-107-21	FILTER, CERAMIC	
C1016	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	SWF101	1-579-273-11	FILTER, SURFACE WAVE	
C1018	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	SWF102	1-760-329-11	FILTER, SURFACE WAVE (KV-C2981A/C2981D/C2983E)	
C1019	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V		1-760-244-21	FILTER, SURFACE WAVE (KV-C2980B)	
C1020	1-124-916-11	ELECT 22MF	20%	50V				
C1021	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V				
C1024	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V			< CONNECTOR >	
C1025	1-124-477-11	ELECT 47MF	20%	16V	CN001	1-695-302-21	CONNECTOR, BOARD TO BOARD 50P	
C1026	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	CN002	*1-568-882-51	PIN, CONNECTOR 7P	
C1027	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V				
C1028	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V				
C1029	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V			< DIODE >	
C1030	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D6	8-719-047-41	DIODE UMZ12N-T146	
C1031	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D7	8-719-041-97	DIODE MA113-TX	
C1032	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D9	8-719-041-97	DIODE MA113-TX	
C1033	1-124-907-11	ELECT 10MF	20%	50V	D11	8-719-041-97	DIODE MA113-TX	
C1034	1-164-346-11	CERAMIC CHIP 1MF		16V	D12	8-719-049-64	DIODE MA715-TX (KV-C2980B)	
		< C1101 - C1139 FITTED ON >			D101	8-719-018-13	DIODE MA8330-TX	
		< KV-C2980B/C2983E >			D102	8-719-914-43	DIODE DAN20K (KV-C2980B)	
C1101	1-163-131-00	CERAMIC CHIP 390PF	5%	50V	D103	8-719-914-43	DIODE DAN20K (KV-C2980B/C2981D)	
C1102	1-163-093-00	CERAMIC CHIP 10PF	5%	50V	D201	8-719-914-42	DIODE DA204K	
C1103	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D301	8-719-041-97	DIODE MA113-TX	
C1104	1-124-907-11	ELECT 10MF	20%	50V	D302	8-719-041-97	DIODE MA113-TX	
C1105	1-124-907-11	ELECT 10MF	20%	50V	D303	8-719-041-97	DIODE MA113-TX	
C1106	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D304	8-719-041-97	DIODE MA113-TX	
C1107	1-124-477-11	ELECT 47MF	20%	16V	D305	8-719-041-97	DIODE MA113-TX	
C1108	1-124-907-11	ELECT 10MF	20%	50V	D314	8-719-047-16	DIODE BAS216	
C1110	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V	D315	8-719-041-97	DIODE MA113-TX	
C1111	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V	D380	1-216-295-91	METAL GLAZE 0 5% 1/10W	
C1112	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V	D401	8-719-047-41	DIODE UMZ12N-T146	
C1113	1-163-137-00	CERAMIC CHIP 680PF	5%	50V	D402	8-719-047-41	DIODE UMZ12N-T146	
C1116	1-124-477-11	ELECT 47MF	20%	16V	D404	8-719-047-41	DIODE UMZ12N-T146	
C1117	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D405	8-719-047-41	DIODE UMZ12N-T146	
C1118	1-124-477-11	ELECT 47MF	20%	16V	D406	8-719-047-41	DIODE UMZ12N-T146	
C1119	1-124-477-11	ELECT 47MF	20%	16V	D407	8-719-047-41	DIODE UMZ12N-T146	
C1120	1-163-137-00	CERAMIC CHIP 680PF	5%	50V	D408	8-719-047-41	DIODE UMZ12N-T146	
C1122	1-124-477-11	ELECT 47MF	20%	16V	D409	8-719-047-41	DIODE UMZ12N-T146	
C1123	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D410	8-719-047-41	DIODE UMZ12N-T146	
C1124	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	D411	8-719-047-41	DIODE UMZ12N-T146	
C1125	1-165-320-11	CERAMIC CHIP 0.47MF	10%	16V	D1002	8-719-914-43	DIODE DAN20K (KV-C2981A/C2981D/C2983E)	
C1126	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	D1101	8-719-041-97	DIODE MA113-TX (KV-C2980B/C2983E)	
C1127	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	D1102	8-719-820-71	DIODE 1SV214 (KV-C2980B/C2983E)	
C1128	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V				
C1129	1-162-568-11	CERAMIC CHIP 0.33MF		25V				

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< IC >							
IC001	8-752-854-74	IC CXP85232-110Q-TL		T101	1-403-686-11	COIL	
IC002	8-759-277-89	IC ST24C16CM1-TR/A			< TRANSISTOR >		
IC003	8-759-041-54	IC MN1382S		Q4	8-729-901-01	TRANSISTOR DTC144EK	
IC004	8-759-041-54	IC MN1382S		Q8	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC101	8-759-193-14	IC TDA9814T		Q11	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC201	8-759-252-14	IC TDA6612-5X-GEG		Q12	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC202	8-759-514-57	IC EA7046F		Q13	8-729-920-74	TRANSISTOR 2SC2412K-QR (KV-C2580B)	
IC301	8-759-251-57	IC TDA8366T		Q14	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC302	8-759-086-97	IC TDA4661T/V2		Q102	8-729-104-80	TRANSISTOR 2SC3355	
IC303	8-759-251-56	IC TDA8395T (KV-C2980B/C2981D)		Q103	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B)	
IC401	8-752-069-53	IC CXA1855Q-T6		Q104	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B)	
IC1001	8-759-252-08	IC CF72306DW-R (KV-C2981A/C2981D/C2983E)		Q105	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B)	
IC1002	8-759-275-29	IC CP70205AFN-R (KV-C2981A/C2981D/C2983E)		Q107	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC1003	8-759-300-71	IC HD14053BFP (KV-C2981A/C2981D/C2983E)		Q108	8-729-907-26	TRANSISTOR IMX1	
IC1004	8-759-991-19	IC PST529CMT-T1 (KV-C2981A/C2981D/C2983E)		Q109	8-729-907-26	TRANSISTOR IMX1	
IC1101	8-759-251-58	IC SAA7283T (KV-C2980B/C2983E)		Q114	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q116	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B/C2981D)	
				Q117	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B/C2981D)	
J401	1-766-296-11	CONNECTOR, DUAL SCART		Q120	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q121	8-729-216-22	TRANSISTOR 2SA1162-G (KV-C2980B)	
				Q123	8-729-901-01	TRANSISTOR DTC144EK	
				Q124	8-729-901-01	TRANSISTOR DTC144EK	
< SOCKET >							
JR25	1-412-006-31	INDUCTOR CHIP 10UH		Q125	8-729-901-01	TRANSISTOR DTC144EK (KV-C2980B)	
JR26	1-412-006-31	INDUCTOR CHIP 10UH		Q130	8-729-920-74	TRANSISTOR 2SC2412K-QR	
JR29	1-412-006-31	INDUCTOR CHIP 10UH		Q131	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q132	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q133	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L1	1-412-010-41	INDUCTOR CHIP 22UH		Q134	8-729-900-53	TRANSISTOR DTC114EK	
L100	1-410-989-11	INDUCTOR CHIP 0.47UH		Q304	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L101	1-408-609-41	INDUCTOR 33UH		Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L102	1-410-214-31	INDUCTOR CHIP 68UH		Q313	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L103	1-408-419-00	INDUCTOR 68UH		Q314	8-729-900-53	TRANSISTOR DTC114EK	
				Q380	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L104	1-414-170-11	INDUCTOR CHIP 100UH (KV-C2980B)		Q381	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L105	1-408-411-00	INDUCTOR 15UH (KV-C2981A/C2981D/C2983E)		Q401	8-729-920-74	TRANSISTOR 2SC2412K-QR	
				Q402	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L106	1-408-406-00	INDUCTOR 5.6UH (KV-C2980B)		Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR	
	1-412-011-31	INDUCTOR CHIP 27UH		Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L107	1-410-985-11	INDUCTOR CHIP 0.22UH		Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
L108	1-408-408-00	INDUCTOR 8.2UH (KV-C2981A/C2981D/C2983E)		Q407	8-729-900-53	TRANSISTOR DTC114EK	
	1-408-414-00	INDUCTOR 27UH (KV-C2980B)		Q408	8-729-920-74	TRANSISTOR 2SC2412K-QR	
L109	1-412-010-41	INDUCTOR CHIP 22UH		Q1001	8-729-920-74	TRANSISTOR 2SC2412K-QR (KV-C2981A/C2981D/C2983E)	
< RESISTOR >							
L110	1-412-004-31	INDUCTOR CHIP 6.8UH		JR3	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L111	1-414-170-11	INDUCTOR CHIP 100UH		JR8	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L112	1-410-200-31	INDUCTOR CHIP 4.7UH		JR9	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L201	1-410-067-21	INDUCTOR 4.7MMH		JR10	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L307	1-408-609-41	INDUCTOR 33UH		JR12	1-216-295-91	METAL GLAZE 0 5% 1/10W	
				JR13	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L308	1-408-424-00	INDUCTOR 180UH		JR14	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L309	1-408-424-00	INDUCTOR 180UH		JR15	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L310	1-408-407-00	INDUCTOR 6.8UH		JR16	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L313	1-216-295-91	METAL GLAZE 0 5% 1/10W		JR17	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L315	1-412-008-11	INDUCTOR CHIP 15UH					
L401	1-410-214-31	INDUCTOR CHIP 68UH		JR18	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L1001	1-408-419-00	INDUCTOR 68UH		JR19	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L1002	1-408-419-00	INDUCTOR 68UH		JR22	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L1003	1-410-999-11	INDUCTOR CHIP 3.3UH		JR24	1-216-295-91	METAL GLAZE 0 5% 1/10W	
L1101	1-412-004-31	INDUCTOR CHIP 6.8UH		JR28	1-216-296-91	METAL GLAZE 0 5% 1/8W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
JR30	1-216-295-91	METAL GLAZE	0 5% 1/10W	R70	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR31	1-216-295-91	METAL GLAZE	0 5% 1/10W	R71	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR51	1-216-296-91	METAL GLAZE	0 5% 1/8W	R72	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR52	1-216-295-91	METAL GLAZE	0 5% 1/10W	R73	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
JR55	1-216-296-91	METAL GLAZE	0 5% 1/8W	R75	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR56	1-216-296-91	METAL GLAZE	0 5% 1/8W	R76	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR57	1-216-296-91	METAL GLAZE	0 5% 1/8W	R77	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR59	1-216-296-91	METAL GLAZE	0 5% 1/8W	R78	1-216-037-00	METAL GLAZE	330 5% 1/10W
JR60	1-216-296-91	METAL GLAZE	0 5% 1/8W	R79	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR61	1-216-296-91	METAL GLAZE	0 5% 1/8W	R82	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR62	1-216-296-91	METAL GLAZE	0 5% 1/8W	R83	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR65	1-216-296-91	METAL GLAZE	0 5% 1/8W	R84	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR69	1-216-296-91	METAL GLAZE	0 5% 1/8W	R85	1-216-025-00	METAL GLAZE	100 5% 1/10W
JR70	1-216-296-91	METAL GLAZE	0 5% 1/8W	R86	1-216-025-00	METAL GLAZE	100 5% 1/10W
JR71	1-216-296-91	METAL GLAZE	0 5% 1/8W	R87	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR113	1-216-295-91	METAL GLAZE	0 5% 1/10W	R88	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR120	1-216-295-91	METAL GLAZE	0 5% 1/10W	R89	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR122	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D/C2983E)	R90	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR123	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D/C2983E)	R91	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR124	1-216-295-91	METAL GLAZE	0 5% 1/10W	R92	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR125	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D/C2983E)	R93	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR126	1-216-295-91	METAL GLAZE	0 5% 1/10W	R94	1-216-039-00	METAL GLAZE	390 5% 1/10W
JR201	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D)	R95	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR202	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2981A/C2981D)	R96	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
JR401	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2980B)	R97	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR402	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2980B)	R99	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR403	1-216-295-91	METAL GLAZE	0 5% 1/10W (KV-C2980B)	R101	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
JR408	1-216-295-91	METAL GLAZE	0 5% 1/10W	R103	1-216-679-11	METAL CHIP	15K 0.50% 1/10W
JR1004	1-216-295-91	METAL GLAZE	0 5% 1/10W	R104	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-C2980B)	R105	1-216-025-00	METAL GLAZE	100 5% 1/10W
R6	1-216-025-00	METAL GLAZE	100 5% 1/10W	R106	1-216-025-00	METAL GLAZE	100 5% 1/10W
R16	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-C2980B)	R107	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R21	1-216-033-00	METAL GLAZE	220 5% 1/10W	R108	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R24	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R109	1-216-180-00	METAL GLAZE	180 5% 1/8W
R25	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R110	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R26	1-216-025-00	METAL GLAZE	100 5% 1/10W	R111	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R27	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R112	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R29	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R113	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R31	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R114	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R33	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R115	1-218-755-11	METAL CHIP	130K 0.50% 1/10W
R35	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R116	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R44	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R117	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R46	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R118	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R47	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R119	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R49	1-216-025-00	METAL GLAZE	100 5% 1/10W	R120	1-216-035-00	METAL GLAZE	270 5% 1/10W
R50	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R121	1-216-035-00	METAL GLAZE	270 5% 1/10W
R54	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R122	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R59	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R123	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R60	1-216-025-00	METAL GLAZE	100 5% 1/10W	R124	1-216-039-00	METAL GLAZE	390 5% 1/10W
R61	1-216-025-00	METAL GLAZE	100 5% 1/10W	R125	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R66	1-216-033-00	METAL GLAZE	220 5% 1/10W	R126	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
				R127	1-216-041-00	METAL GLAZE	470 5% 1/10W
				R128	1-216-043-00	METAL GLAZE	560 5% 1/10W
				R130	1-216-043-00	METAL GLAZE	560 5% 1/10W
				R131	1-216-043-00	METAL GLAZE	560 5% 1/10W
				R134	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-C2980B/C2981D)
				R135	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-C2980B/C2981D)
				R136	1-216-081-00	METAL GLAZE	22K 5% 1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R137	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R211	1-216-025-00	METAL GLAZE	100	5%	1/10W
R139	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R213	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R140	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R216	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R141	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	R217	1-216-031-00	METAL GLAZE	180	5%	1/10W
R142	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R219	1-216-025-00	METAL GLAZE	100	5%	1/10W
R143	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R221	1-216-025-00	METAL GLAZE	100	5%	1/10W
			(KV-C2980B/C2981D)			R222	1-216-025-00	METAL GLAZE	100	5%	1/10W
R144	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	R223	1-216-029-00	METAL GLAZE	150	5%	1/10W
R145	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	R224	1-216-025-00	METAL GLAZE	100	5%	1/10W
R146	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R147	1-216-033-00	METAL GLAZE	220	5%	1/10W	R308	1-216-025-00	METAL GLAZE	100	5%	1/10W
			(KV-C2981A/C2981D/C2983E)			R309	1-216-025-00	METAL GLAZE	100	5%	1/10W
			(KV-C2980B)			R311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R148	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R313	1-216-025-00	METAL GLAZE	100	5%	1/10W
R149	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R315	1-216-025-00	METAL GLAZE	100	5%	1/10W
R150	1-216-295-91	METAL GLAZE	0	5%	1/10W	R316	1-216-025-00	METAL GLAZE	100	5%	1/10W
			(KV-C2980B)			R317	1-216-025-00	METAL GLAZE	100	5%	1/10W
R151	1-216-081-00	METAL GLAZE	22K	5%	1/10W	R318	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R153	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	R319	1-216-025-00	METAL GLAZE	100	5%	1/10W
R154	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	R320	1-216-025-00	METAL GLAZE	100	5%	1/10W
R155	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R321	1-216-025-00	METAL GLAZE	100	5%	1/10W
R156	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R322	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R157	1-216-295-91	METAL GLAZE	0	5%	1/10W	R323	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R325	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R161	1-216-031-00	METAL GLAZE	180	5%	1/10W	R326	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R162	1-216-017-00	METAL GLAZE	47	5%	1/10W	R327	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R163	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R328	1-216-025-00	METAL GLAZE	100	5%	1/10W
R164	1-216-025-00	METAL GLAZE	100	5%	1/10W	R329	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R165	1-216-089-91	METAL GLAZE	47K	5%	1/10W	R330	1-216-033-00	METAL GLAZE	220	5%	1/10W
R166	1-216-097-00	METAL GLAZE	100K	5%	1/10W	R331	1-216-033-00	METAL GLAZE	220	5%	1/10W
R170	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R332	1-216-033-00	METAL GLAZE	220	5%	1/10W
R171	1-216-035-00	METAL GLAZE	270	5%	1/10W	R333	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R172	1-216-295-91	METAL GLAZE	0	5%	1/10W	R340	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R173	1-216-035-00	METAL GLAZE	270	5%	1/10W	R341	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R174	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	R342	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R180	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R352	1-216-123-11	METAL GLAZE	1.2M	5%	1/10W
R182	1-216-073-00	METAL GLAZE	10K	5%	1/10W	R354	1-216-025-00	METAL GLAZE	100	5%	1/10W
R183	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	R355	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R185	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	R356	1-216-025-00	METAL GLAZE	100	5%	1/10W
R186	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	R364	1-216-041-00	METAL GLAZE	470	5%	1/10W
R193	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R365	1-216-027-00	METAL GLAZE	120	5%	1/10W
R194	1-216-180-00	METAL GLAZE	180	5%	1/8W	R368	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
			(KV-C2980B)			R370	1-216-033-00	METAL GLAZE	220	5%	1/10W
R195	1-216-113-00	METAL GLAZE	470K	5%	1/10W	R371	1-216-033-00	METAL GLAZE	220	5%	1/10W
R196	1-216-017-00	METAL GLAZE	47	5%	1/10W	R372	1-216-033-00	METAL GLAZE	220	5%	1/10W
R197	1-216-041-00	METAL GLAZE	470	5%	1/10W	R373	1-216-041-00	METAL GLAZE	470	5%	1/10W
R198	1-216-029-00	METAL GLAZE	150	5%	1/10W	R380	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R199	1-216-039-00	METAL GLAZE	390	5%	1/10W	R381	1-216-025-00	METAL GLAZE	100	5%	1/10W
			(KV-C2981A/C2981D/C2983E)			R382	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
			1-216-051-00 METAL GLAZE 1.2K 5% 1/10W (KV-C2980B)			R383	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R200	1-216-047-00	METAL GLAZE	820	5%	1/10W	R384	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R201	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	R385	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R202	1-216-091-00	METAL GLAZE	56K	5%	1/10W	R386	1-216-041-00	METAL GLAZE	470	5%	1/10W
R203	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	R387	1-216-041-00	METAL GLAZE	470	5%	1/10W
R204	1-216-025-00	METAL GLAZE	100	5%	1/10W	R388	1-216-041-00	METAL GLAZE	470	5%	1/10W
R205	1-216-025-00	METAL GLAZE	100	5%	1/10W	R389	1-216-041-00	METAL GLAZE	470	5%	1/10W
R206	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R390	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R207	1-216-049-00	METAL GLAZE	1K	5%	1/10W	R392	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R210	1-216-025-00	METAL GLAZE	100	5%	1/10W	R393	1-216-089-91	METAL GLAZE	47K	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R401	1-216-039-00	METAL GLAZE	390 5% 1/10W	R492	1-216-295-91	METAL GLAZE 0	5% 1/10W
R402	1-216-089-91	METAL GLAZE	47K 5% 1/10W			< R1001 - R1029 FITTED ON >	
R403	1-216-039-00	METAL GLAZE	390 5% 1/10W			< KV-C2981A/C2981D/C2983E >	
R404	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1001	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R405	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1002	1-216-025-00	METAL GLAZE 100	5% 1/10W
R406	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1004	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R407	1-216-198-91	METAL GLAZE	1K 5% 1/8W	R1005	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R408	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1008	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R409	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1009	1-216-025-00	METAL GLAZE 100	5% 1/10W
R410	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1010	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R413	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1011	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R415	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1012	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R417	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1014	1-216-025-00	METAL GLAZE 100	5% 1/10W
R419	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1015	1-216-025-00	METAL GLAZE 100	5% 1/10W
R420	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1016	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R421	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1025	1-216-033-00	METAL GLAZE 220	5% 1/10W
R422	1-216-022-00	METAL GLAZE	75 5% 1/10W	R1026	1-216-033-00	METAL GLAZE 220	5% 1/10W
R423	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R1027	1-216-033-00	METAL GLAZE 220	5% 1/10W
R424	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1029	1-216-025-00	METAL GLAZE 100	5% 1/10W
R425	1-216-022-00	METAL GLAZE	75 5% 1/10W			< R1101 - R1118 FITTED ON >	
R426	1-216-025-00	METAL GLAZE	100 5% 1/10W			< KV-C2980B/C2983E >	
R427	1-216-188-00	METAL GLAZE	390 5% 1/8W	R1101	1-216-025-00	METAL GLAZE 100	5% 1/10W
R429	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1102	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R430	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1103	1-220-149-11	METAL GLAZE 2.2	10% 1/2W
R431	1-216-188-00	METAL GLAZE	390 5% 1/8W	R1104	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R432	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1105	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R433	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1106	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R434	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1107	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R435	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1108	1-216-121-00	METAL GLAZE 1M	5% 1/10W
R436	1-216-022-00	METAL GLAZE	75 5% 1/10W	R1109	1-216-121-00	METAL GLAZE 1M	5% 1/10W
R437	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1110	1-220-238-11	METAL GLAZE 10	5% 1/4W
R438	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1111	1-216-025-00	METAL GLAZE 100	5% 1/10W
R439	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1112	1-216-025-00	METAL GLAZE 100	5% 1/10W
R440	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1113	1-216-117-00	METAL GLAZE 680K	5% 1/10W
R441	1-216-022-00	METAL GLAZE	75 5% 1/10W	R1114	1-216-158-00	METAL GLAZE 22	5% 1/8W
R442	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1115	1-216-121-00	METAL GLAZE 1M	5% 1/10W
R443	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1116	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R444	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1117	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R445	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1118	1-220-149-11	METAL GLAZE 2.2	10% 1/2W
R446	1-216-025-00	METAL GLAZE	100 5% 1/10W			< RESISTOR NETWORK >	
R447	1-216-025-00	METAL GLAZE	100 5% 1/10W	RA1	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R448	1-216-073-00	METAL GLAZE	10K 5% 1/10W	RA2	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R449	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	RA3	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R454	1-216-089-91	METAL GLAZE	47K 5% 1/10W	RA7	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R458	1-216-049-00	METAL GLAZE	1K 5% 1/10W	RA8	1-239-412-11	NETWORK, RESISTOR (CHIP TYPE)	
R461	1-216-022-00	METAL GLAZE	75 5% 1/10W	RA9	1-239-412-11	NETWORK, RESISTOR (CHIP TYPE)	
R464	1-216-034-00	METAL GLAZE	240 5% 1/10W	RA10	1-236-908-11	RESISTOR, NETWORK (CHIP TYPE)	
R465	1-216-025-00	METAL GLAZE	100 5% 1/10W	RA11	1-236-904-11	RESISTOR, NETWORK (CHIP TYPE)	
R473	1-216-022-00	METAL GLAZE	75 5% 1/10W			< VARIABLE RESISTOR >	
R474	1-216-049-00	METAL GLAZE	1K 5% 1/10W	RV102	1-241-765-11	RES, ADJ CARBON 22K (KV-C2980B)	
R482	1-216-073-00	METAL GLAZE	10K 5% 1/10W			< TUNER >	
R483	1-216-029-00	METAL GLAZE	150 5% 1/10W	TU101	8-598-045-01	TUNER (BTP-EC411)	
R484	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R485	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R486	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R487	1-216-022-00	METAL GLAZE	75 5% 1/10W				
R488	1-216-022-00	METAL GLAZE	75 5% 1/10W				
R489	1-216-022-00	METAL GLAZE	75 5% 1/10W				
R490	1-216-295-91	METAL GLAZE	0 5% 1/10W				
R491	1-216-295-91	METAL GLAZE	0 5% 1/10W				

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The components identified by shading and marked **A** are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK					
< CRYSTAL >												
X2	1-579-063-21	VIBRATOR, CERAMIC		Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE						
X301	1-760-331-11	VIBRATOR, CRYSTAL		Q709	8-729-906-70	TRANSISTOR BF871						
X1001	1-567-495-11	OSCILLATOR, CRYSTAL (KV-C2981A/C2981D/C2983E)		Q710	8-729-200-17	TRANSISTOR 2SA1091-0						
X1101	1-579-689-21	VIBRATOR, CRYSTAL (KV-C2980B/C2983E)		< RESISTOR >								

*A-1638-053-A C BOARD, COMPLETE *****												
< CAPACITOR >												
C702	1-102-824-00	CERAMIC	470PF	5%	50V	R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
C703	1-102-115-00	CERAMIC	560PF	10%	50V	R705	1-202-822-00	SOLID	2.2K	10%	1/2W	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	R706	1-249-409-11	CARBON	220	5%	1/4W	
C706	1-102-113-00	CERAMIC	390PF	10%	50V	R707	1-249-408-11	CARBON	180	5%	1/4W	
C706	1-102-822-00	CERAMIC	390PF	5%	50V	R709	1-202-844-00	SOLID	330K	10%	1/2W	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	R711	1-249-421-11	CARBON	2.2K	5%	1/4W	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	R712	1-202-822-00	SOLID	2.2K	10%	1/2W	
C709	1-102-114-00	CERAMIC	470PF	10%	50V	R713	1-215-493-00	METAL	1M	1%	1/4W	
C710	1-123-947-00	ELECT	10MF	20%	250V	R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
C712	1-102-115-00	CERAMIC	560PF	10%	50V	R715	1-249-417-11	CARBON	1K	5%	1/4W	
C714	1-124-360-00	ELECT	1000MF	20%	16V	R716	1-249-409-11	CARBON	220	5%	1/4W	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	R717	1-249-408-11	CARBON	180	5%	1/4W	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	R718	1-202-814-11	SOLID	33K	10%	1/2W	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	R720	1-249-421-11	CARBON	2.2K	5%	1/4W	
< CONNECTOR >												
CN702	1-695-915-11	TAB (CONTACT)		R722	1-202-848-00	SOLID	680K	10%	1/2W			
CN703	*1-568-882-51	PIN, CONNECTOR 7P		R723	1-249-417-11	CARBON	1K	5%	1/4W			
< DIODE >												
D701	8-719-110-14	DIODE RD9.1ESB3		R724	1-202-846-00	SOLID	470K	10%	1/2W			
D702	8-719-901-33	DIODE 1SS133		R726	1-202-822-00	SOLID	2.2K	10%	1/2W			
D703	8-719-901-33	DIODE 1SS133		R727	1-249-409-11	CARBON	220	5%	1/4W			
D704	8-719-901-33	DIODE 1SS133		R728	1-216-350-21	METAL OXIDE	1.2	5%	1W	F		
D705	8-719-901-33	DIODE 1SS133		R729	1-249-408-11	CARBON	180	5%	1/4W			
D706	8-719-901-33	DIODE 1SS133		R731	1-249-421-11	CARBON	2.2K	5%	1/4W			
D707	8-719-901-33	DIODE 1SS133		R732	1-215-479-00	METAL	270K	1%	1/4W			
D708	8-719-901-33	DIODE 1SS133		R734	1-247-807-31	CARBON	100	5%	1/4W			
D709	8-719-901-33	DIODE 1SS133		R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F		
D710	8-719-901-33	DIODE 1SS133		R737	1-215-485-00	METAL	470K	1%	1/4W			
D711	8-719-302-43	DIODE EL1Z		R739	1-249-417-11	CARBON	1K	5%	1/4W			
D713	8-719-901-33	DIODE 1SS133		R741	1-202-549-00	SOLID	100	20%	1/2W			
< CRT SOCKET >												
J701	A 1-526-990-21	SOCKET, CRT		R743	1-202-842-11	SOLID	220K	10%	1/2W			
< COIL >												
L704	1-408-609-41	INDUCTOR	33UH	< VARIABLE RESISTOR >								
< TRANSISTOR >												
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE		RV701	1-230-641-11	RES, ADJ, METAL GLAZE	2.2M					
Q703	8-729-906-70	TRANSISTOR BF871		RV702	1-241-656-11	RES, ADJ, METAL FILM	110M					
Q704	8-729-200-17	TRANSISTOR 2SA1091-0		*****								
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE		*A-1642-125-A COMPLETE PCB, D *****								
Q706	8-729-906-70	TRANSISTOR BF871		4-201-023-01 SPACER, INSULATING 4-202-373-01 SPRING, IC 4-812-134-00 RIVET NYLON, 3.5								
Q707	8-729-200-17	TRANSISTOR 2SA1091-0		< CAPACITOR >								
C502												
C503												
C504												
C506												
C507												
C509												
C510												
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The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK				
C519	1-102-228-00	CERAMIC	470PF	10%	500V	C821	1-162-114-00	CERAMIC	0.0047MF	2KV	
C520	1-124-480-11	ELECT	470MF	20%	25V	C822	1-123-948-00	ELECT	22MF	20%	250V
C521	1-124-006-11	ELECT	10MF	20%	25V	C824	1-123-024-21	ELECT	33MF	160V	
C522	1-124-907-11	ELECT	10MF	20%	50V	C829	1-124-902-00	ELECT	0.47MF	20%	50V
C523	1-136-165-00	FILM	0.1MF	5%	50V	C830	1-124-902-00	ELECT	0.47MF	20%	50V
C600 Δ	1-164-503-61	CERAMIC	0.0022MF	20%	400V	C832	1-124-903-11	ELECT	1MF	20%	50V
C601 Δ	1-161-964-91	CERAMIC	0.0047MF		250V	C834	1-126-233-11	ELECT	22MF	20%	25V
C602 Δ	1-161-964-91	CERAMIC	0.0047MF		250V	C835	1-162-318-11	CERAMIC	0.001MF	10%	500V
C603	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V	C836	1-162-117-00	CERAMIC	100PF	10%	500V
C604	1-124-122-11	ELECT	100MF	20%	50V	C838	1-102-228-00	CERAMIC	470PF	10%	500V
C605	1-124-667-11	ELECT	10MF	20%	100V	C839	1-161-744-00	CERAMIC	0.01MF	250V	
C606	1-162-318-11	CERAMIC	0.0001MF	10%	500V	C906	1-124-910-11	ELECT	47MF	20%	50V
C607	1-124-120-11	ELECT	220MF	20%	25V	C908	1-124-910-11	ELECT	47MF	20%	50V
C608	1-109-880-11	FILM	0.0015MF	3%	2KV	C909	1-124-903-11	ELECT	1MF	20%	50V
C611	1-102-228-00	CERAMIC	470PF	10%	500V	C910	1-137-393-91	FILM	0.01MF	5%	100V
C612	1-104-799-11	ELECT	22MF	20%	100V	C1200	1-136-165-00	FILM	0.1MF	5%	50V
C613	1-124-347-00	ELECT	100MF	20%	160V	C1201	1-136-165-00	FILM	0.1MF	5%	50V
C614	1-126-804-11	ELECT	100MF	20%	25V	C1202	1-136-165-00	FILM	0.1MF	5%	50V
C615	1-126-376-11	ELECT	47MF	20%	25V	C1203	1-136-169-00	FILM	0.22MF	5%	50V
C616	1-128-386-11	ELECT	1000MF	20%	25V	C1204	1-136-169-00	FILM	0.22MF	5%	50V
C617	1-126-183-11	ELECT	1000MF	20%	16V	C1205	1-101-005-00	CERAMIC	0.022MF	50V	
C618	1-136-165-00	FILM	0.1MF	5%	50V	C1206	1-101-005-00	CERAMIC	0.022MF	50V	
C619	1-102-228-00	CERAMIC	470PF	10%	500V	C1207	1-126-101-11	ELECT	100MF	20%	16V
C620	1-102-228-00	CERAMIC	470PF	10%	500V	C1208	1-124-927-11	ELECT	4.7MF	20%	50V
C621	1-136-165-00	FILM	0.1MF	5%	50V	C1209	1-124-927-11	ELECT	4.7MF	20%	50V
C622	1-104-797-11	ELECT	0.47MF	20%	100V	C1210	1-124-925-11	ELECT	2.2MF	20%	50V
C623	1-124-120-11	ELECT	220MF	20%	25V	C1211	1-124-925-11	ELECT	2.2MF	20%	50V
C624	1-136-165-00	FILM	0.1MF	5%	50V	C1214	1-126-101-11	ELECT	100MF	20%	16V
C625	1-124-910-11	ELECT	47MF	20%	50V	C1215	1-136-173-00	FILM	0.47MF	5%	50V
C626	1-124-120-11	ELECT	220MF	20%	25V	C1216	1-137-366-11	FILM	0.0022MF	5%	50V
C627	1-124-120-11	ELECT	220MF	20%	25V	C1217	1-137-366-11	FILM	0.0022MF	5%	50V
C628	1-124-907-11	ELECT	10MF	20%	50V	C1218	1-124-120-11	ELECT	220MF	20%	16V
C629	1-126-800-51	ELECT	2200MF	20%	25V	< CONNECTOR >					
C630	1-126-800-51	ELECT	2200MF	20%	25V	CN600 Δ	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
C631	1-124-916-11	ELECT	22MF	20%	50V	CN601 Δ	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
C632	1-124-120-11	ELECT	220MF	20%	25V	CN602 Δ	*1-695-292-11	PIN, CONNECTOR (POWER)			
C633 Δ	1-107-564-11	FILM	0.22MF	20%	300V	CN800	*1-580-798-11	CONNECTOR PIN (DY) 6P			
C634 Δ	1-107-564-11	FILM	0.22MF	20%	300V	CN803	1-695-915-11	TAB (CONTACT)			
C635 Δ	1-107-564-11	FILM	0.22MF	20%	300V	CN804	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P			
C636 Δ	1-164-503-61	CERAMIC	0.0022MF	20%	400V	CN807	1-568-878-51	PIN, CONNECTOR 3P			
C639	1-136-165-00	FILM	0.1MF	5%	50V	CN901	*1-564-520-11	PLUG, CONNECTOR 5P			
C640	1-106-220-00	NYLAR	0.1MF	10%	100V	CN902	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P			
C647	1-162-116-00	CERAMIC	680PF	10%	2KV	CN903	*1-564-516-11	PLUG, CONNECTOR 13P			
C800	1-137-437-11	FILM	0.0056MF	5%	50V	CN904	*1-564-509-11	PLUG, CONNECTOR 6P			
C801	1-136-153-00	FILM	0.01MF	5%	50V	CN904	*1-568-881-51	PIN, CONNECTOR 6P			
C804	1-136-165-00	FILM	0.1MF	5%	50V	CN905	*1-564-506-11	PLUG, CONNECTOR 3P			
C805	1-106-395-00	NYLAR	0.15MF	10%	200V	CN905	*1-568-878-51	PIN, CONNECTOR 3P			
C806	1-108-704-11	NYLAR	0.1MF	10%	200V	CN1200	*1-568-879-11	PIN, CONNECTOR 4P			
C807	1-136-540-11	FILM	0.82MF	5%	200V	CN1201	*1-568-878-51	PIN, CONNECTOR 3P			
C810	1-124-634-11	ELECT	1MF	20%	250V	< DIODE >					
C811	1-102-212-00	CERAMIC	820PF	10%	500V						
C812	1-136-112-00	FILM	1.4MF	5%	200V						
C813	1-129-722-00	FILM	0.047MF	10%	630V	D500	8-719-109-85	DIODE RD5.1ESB2			
C814	1-136-591-11	FILM	0.017MF	3%	1.4KV	D502	8-719-979-85	DIODE EGP20G			
C815	1-136-562-11	NYLAR	0.0082MF	10%	400V	D503	8-719-979-85	DIODE EGP20G			
C816	1-161-754-00	CERAMIC	0.001MF	10%	2KV	D504	8-719-901-33	DIODE 1SS133			
C817	1-161-754-00	CERAMIC	0.001MF	10%	2KV	D505	8-719-982-03	DIODE MTZJ-3.6A			
C818	1-162-116-00	CERAMIC	680PF	10%	2KV	D506	8-719-901-33	DIODE 1SS133			
C819	1-136-208-11	FILM	0.068MF	10%	250V	D507	8-719-109-85	DIODE RD5.1ESB2			
C820	1-102-114-00	CERAMIC	470PF	10%	50V	D600	8-719-510-53	DIODE D4SB60L			

The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

D

D

The components identified by shading and marked **F** are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R517	1-215-427-00	METAL	1.8K 1% 1/4W	R805	1-249-425-11	CARBON	4.7K 5% 1/4W
R518	1-215-427-00	METAL	1.8K 1% 1/4W	R812	1-249-421-11	CARBON	2.2K 5% 1/4W
R520	1-215-457-00	METAL	33K 1% 1/4W	R813	1-215-867-00	METAL OXIDE	470 5% 1W F
R521	1-215-461-00	METAL	47K 1% 1/4W	R814	1-249-411-11	CARBON	330 5% 1/4W
R522	1-249-433-11	CARBON	22K 5% 1/4W	R816	1-216-481-11	METAL OXIDE	1.2K 5% 3W F
R523	1-249-433-11	CARBON	22K 5% 1/4W	R817	1-216-481-11	METAL OXIDE	1.2K 5% 3W F
R524	1-249-425-11	CARBON	4.7K 5% 1/4W	R818	1-215-882-00	METAL OXIDE	22 5% 2W F
R525	1-249-425-11	CARBON	4.7K 5% 1/4W	R819	1-216-345-11	METAL OXIDE	0.47 5% 1W F
R526	1-249-421-11	CARBON	2.2K 5% 1/4W	R820	1-249-403-11	CARBON	68 5% 1/4W
R528	1-259-880-11	CARBON	2.2M 5% 1/4W	R821	1-215-909-11	METAL OXIDE	47 5% 3W F
R529	1-247-895-00	CARBON	470K 5% 1/4W	R822	1-215-868-00	METAL OXIDE	680 5% 1W F
R600	1-216-490-11	METAL OXIDE	39K 5% 3W F	R824	1-249-420-11	CARBON	1.8K 5% 1/4W
R601	1-249-417-11	CARBON	1K 5% 1/4W	R826	1-247-752-11	CARBON	1K 5% 1/2W
R603	1-215-875-11	METAL OXIDE	10K 5% 1W F	R827	1-249-425-11	CARBON	4.7K 5% 1/4W
R604	1-249-420-11	CARBON	1.8K 5% 1/4W	R828	1-249-430-11	CARBON	12K 5% 1/4W
R605	1-216-362-11	METAL OXIDE	0.27 5% 2W F	R829	1-249-493-11	CARBON	56K 5% 1/2W
R607	1-216-421-71	METAL OXIDE	12 5% 1W F	R830	1-217-778-11	FUSIBLE	1K 5% 1W F
R608	1-216-365-00	METAL OXIDE	0.47 5% 2W F	R833	1-249-421-11	CARBON	2.2K 5% 1/4W F
R610	1-215-427-00	METAL	1.8K 1% 1/4W	R836	1-249-439-11	CARBON	68K 5% 1/4W
R611	1-215-859-00	METAL OXIDE	22 5% 1W F	R837	1-249-431-11	CARBON	15K 5% 1/4W
R612	1-249-428-11	CARBON	8.2K 5% 1/4W	R840	1-247-807-31	CARBON	100 5% 1/4W
R613	1-249-417-11	CARBON	1K 5% 1/4W	R841	1-249-418-11	CARBON	1.2K 5% 1/4W
R614	1-215-877-11	METAL OXIDE	22K 5% 1W F	R842	1-249-441-11	CARBON	100K 5% 1/4W
R615	1-249-435-11	CARBON	33K 5% 1/4W	R843	1-247-893-11	CARBON	390K 5% 1/4W
R616	1-215-479-00	METAL	270K 1% 1/4W	R846	1-249-441-11	CARBON	100K 5% 1/4W
R617	1-215-901-00	METAL OXIDE	33K 5% 2W F	R847	1-247-891-00	CARBON	330K 5% 1/4W
R618	1-249-433-11	CARBON	22K 5% 1/4W	R848	1-247-887-00	CARBON	220K 5% 1/4W
R619	1-216-425-11	METAL OXIDE	56 5% 1W F	R849	1-249-429-11	CARBON	10K 5% 1/4W
R620	1-247-895-00	CARBON	470K 5% 1/4W	R850	1-249-425-11	CARBON	4.7K 5% 1/4W
R621	1-216-425-11	METAL OXIDE	56 5% 1W F	R851	1-215-898-11	METAL OXIDE	10K 5% 2W F
R622	1-249-437-11	CARBON	47K 5% 1/4W	R852	1-249-432-11	CARBON	18K 5% 1/4W
R623	1-249-429-11	CARBON	10K 5% 1/4W	R901	1-202-539-00	SOLID	39 10% 1/2W
R624	1-249-405-11	CARBON	100 5% 1/4W F	R902	1-202-539-00	SOLID	39 10% 1/2W
R625	1-249-434-11	CARBON	27K 5% 1/4W	R907	1-247-804-11	CARBON	75 5% 1/4W
R626	1-249-430-11	CARBON	12K 5% 1/4W	R916	1-249-397-11	CARBON	22 5% 1/4W
R628	1-249-415-11	CARBON	680 5% 1/4W F	R917	1-249-397-11	CARBON	22 5% 1/4W
R629	▲ 1-244-945-91	CARBON	1M 5% 1/2W	R1200	1-249-425-11	CARBON	4.7K 5% 1/4W
R630	▲ 1-218-265-11	METAL	8.2M 5% 1W	R1201	1-249-434-11	CARBON	27K 5% 1/4W
R631	▲ 1-205-949-11	WIREWOUND	1.8 5% 10W	R1202	1-249-393-11	CARBON	10 5% 1/4W F
R632	1-247-807-31	CARBON	100 5% 1/4W	R1203	1-249-421-11	CARBON	2.2K 5% 1/4W
R633	1-247-807-31	CARBON	100 5% 1/4W	R1204	1-249-421-11	CARBON	2.2K 5% 1/4W
R634	1-249-397-11	CARBON	22 5% 1/4W F	R1205	1-249-428-11	CARBON	8.2K 5% 1/4W
R635	1-249-437-11	CARBON	47K 5% 1/4W	R1206	1-249-428-11	CARBON	8.2K 5% 1/4W
R636	1-249-417-11	CARBON	1K 5% 1/4W	R1207	▲ 1-249-417-11	CARBON	1K 5% 1/4W
R637	1-249-409-11	CARBON	220 5% 1/4W	R1208	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R638	1-249-433-11	CARBON	22K 5% 1/4W	R1209	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R639	1-215-427-00	METAL	1.8K 1% 1/4W	R1210	▲ 1-249-417-11	CARBON	1K 5% 1/4W
R640	1-216-381-11	METAL OXIDE	0.22 5% 3W F	R1211	1-249-424-11	CARBON	3.9K 5% 1/4W
R641	1-216-381-11	METAL OXIDE	0.22 5% 3W F	R1212	1-249-424-11	CARBON	3.9K 5% 1/4W
R642	▲ 1-205-949-11	WIREWOUND	1.8 5% 10W	R1213	1-249-421-11	CARBON	2.2K 5% 1/4W
R644	1-247-807-31	CARBON	100 5% 1/4W	R1216	1-249-413-11	CARBON	470 5% 1/4W
R645	1-249-422-11	CARBON	2.7K 5% 1/4W	R1217	1-249-425-11	CARBON	4.7K 5% 1/4W
R646	1-249-377-11	CARBON	0.47 5% 1/4W F				< VARIABLE RESISTOR >
R647	1-202-933-61	FUSIBLE	0.1 10% 1/2W F				
R648	1-216-397-11	METAL OXIDE	4.7 5% 3W F				
R800	1-249-421-11	CARBON	2.2K 5% 1/4W	RV301	1-238-552-11	RES, ADJ, CARBON	470K
R801	1-249-429-11	CARBON	10K 5% 1/4W				< RELAY >
R802	1-249-431-11	CARBON	15K 5% 1/4W				
R803	1-249-423-11	CARBON	3.3K 5% 1/4W				
R804	1-249-430-11	CARBON	12K 5% 1/4W	RY600	▲ 1-515-720-31	RELAY	

D

VM

H1

The components identified by shading and marked ***** are critical for safety.
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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< SPARK GAP >							
SG801	1-519-422-11	GAP, SPARK		Q1702	8-729-173-38	TRANSISTOR 2SA733-K	
< TRANSFORMER >							
LF600 A	1-421-776-11	LFT		Q1703	8-729-017-05	TRANSISTOR 2SA1837	
LF601 A	1-421-776-11	LFT		Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE	
T601 A	1-426-805-11	TRANSFORMER		Q1705	8-729-017-06	TRANSISTOR 2SC4793	
T800	1-424-545-11	TRANSFORMER, FERRITE (PMT)		Q1706	8-729-119-78	TRANSISTOR 2SC2785-HFE	
T803 A	1-453-169-11	TRANSFORMER ASSY, FLYBACK (BX-1604A2)		Q1707	8-729-140-96	TRANSISTOR 2SD774-34	
T804	1-437-090-00	HDT		Q1708	8-729-901-59	TRANSISTOR BF199	
< THERMISTOR >							
THP600 A	1-809-827-11	THERMISTOR, POSITIVE		Q1709	8-729-255-12	TRANSISTOR 2SC2551-0	
< RESISTOR >							
R1701	1-247-807-31	CARBON	100 5% 1/4W				
R1702	1-249-420-11	CARBON	1.8K 5% 1/4W				
R1703	1-247-807-31	CARBON	100 5% 1/4W				
R1704	1-249-420-11	CARBON	1.8K 5% 1/4W				
R1705	1-247-736-11	CARBON	56 5% 1/2W F				
R1706	1-249-414-11	CARBON	560 5% 1/4W F				
R1707	1-249-412-11	CARBON	390 5% 1/4W				
R1709	1-249-416-11	CARBON	820 5% 1/4W				
R1710	1-249-385-11	CARBON	2.2 5% 1/4W F				
R1711	1-249-432-11	CARBON	18K 5% 1/4W				
< SPRING, TRANSISTOR >							
R1712	1-249-435-11	CARBON	33K 5% 1/4W				
R1713	1-249-438-11	CARBON	56K 5% 1/4W				
R1714	1-249-429-11	CARBON	10K 5% 1/4W				
R1715	1-216-476-11	METAL OXIDE	180 5% 3W F				
R1716	1-249-417-11	CARBON	1K 5% 1/4W F				
< CAPACITOR >							
C1701	1-124-119-00	ELECT	330MF 20% 16V				
C1702	1-101-880-00	CERAMIC	47PF 5% 50V				
C1703	1-102-115-00	CERAMIC	560PF 10% 50V				
C1704	1-161-830-00	CERAMIC	0.0047MF 500V				
C1705	1-124-120-11	ELECT	220MF 20% 16V				
C1706	1-123-935-00	ELECT	33MF 20% 160V				
C1707	1-124-907-11	ELECT	10MF 20% 50V				
C1708	1-101-006-00	CERAMIC	0.047MF 50V				
C1709	1-108-704-11	MYLAR	0.1MF 10% 200V				
C1710	1-136-207-11	FILM	0.047MF 10% 250V				
C1711	1-162-318-11	CERAMIC	0.001MF 10% 500V				
C1712	1-124-799-11	ELECT	2.2MF 20% 160V				
C1713	1-162-318-11	CERAMIC	0.001MF 10% 500V				
C1714	1-136-207-11	FILM	0.047MF 10% 250V				
C1716	1-124-907-11	ELECT	10MF 20% 50V				
C1718	1-124-120-11	ELECT	220MF 20% 16V				
C1719	1-124-927-11	ELECT	4.7MF 20% 50V				
< CONNECTOR >							
CN1819	*1-568-882-51	PIN, CONNECTOR 7P		*1-652-275-11 H1 BOARD			
< DIODE >							
D1701	8-719-901-33	DIODE 1SS133		< CAPACITOR >			
D1702	8-719-901-33	DIODE 1SS133		C900	1-101-810-00	CERAMIC	100PF 5% 50V
D1703	8-719-901-33	DIODE 1SS133		C901	1-101-810-00	CERAMIC	100PF 5% 50V
D1704	8-719-982-37	DIODE MTZJ-39C		C902	1-137-372-11	FILM	0.022MF 5% 50V
D1705	8-719-982-37	DIODE MTZJ-39C		C903	1-137-372-11	FILM	0.022MF 5% 50V
D1706	8-719-901-33	DIODE 1SS133		C907	1-124-903-11	ELECT	1MF 20% 50V
D1707	8-719-901-33	DIODE 1SS133		< CONNECTOR >			
< COIL >							
CN900	1-568-678-21	TERMINAL BLOCK, S 3P					
CN906	*1-564-516-11	PLUG, CONNECTOR 13P					
< INDUCTOR >							
L1701	1-408-417-00	INDUCTOR	47UH	< SOCKET >			
L1702	1-408-418-00	INDUCTOR	56UH	J900	1-764-606-11	JACK	
< TRANSISTOR >							
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE					

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H1

H2

H3

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< COIL >							
L900	1-408-409-00	INDUCTOR	10UH				
L901	1-408-409-00	INDUCTOR	10UH				
L902	1-408-409-00	INDUCTOR	10UH				
L903	1-408-409-00	INDUCTOR	10UH				
< RESISTOR >							
R905	1-247-804-11	CARBON	75	5%	1/4W		
R906	1-247-804-11	CARBON	75	5%	1/4W		
R909	1-249-437-11	CARBON	47K	5%	1/4W		
R910	1-249-437-11	CARBON	47K	5%	1/4W		
R915	1-249-397-11	CARBON	22	5%	1/4W		

*1-652-269-11 H2 BOARD							

< CAPACITOR >							
C904	1-124-910-11	ELECT	47MF	20%	50V		
C905	1-124-907-11	ELECT	10MF	20%	50V		
< CONNECTOR >							
CN907	*1-568-881-51	PIN, CONNECTOR 6P					
< DIODE >							
D901	8-719-030-11	DIODE SLA-570KT3F					
	4-202-707-01	HOLDER, LED (D901)					
< IC >							
IC900	8-741-790-11	IC SBX1790-11					
< RESISTOR >							
R900	1-249-409-11	CARBON	220	5%	1/4W		
R908	1-249-401-11	CARBON	47	5%	1/4W		

*1-652-270-11 H3 BOARD							

< CAPACITOR >							
CN908	*1-564-506-11	PLUG, CONNECTOR 3P					
CN908	*1-568-878-51	PIN, CONNECTOR 3P					
< RESISTOR >							
R911	1-249-423-11	CARBON	3.3K	5%	1/4W		
R912	1-249-429-11	CARBON	10K	5%	1/4W		
R913	1-249-423-11	CARBON	3.3K	5%	1/4W		
R914	1-249-429-11	CARBON	10K	5%	1/4W		
< SWITCH >							
S900	1-692-979-11	SWITCH, TACTILE					
S901	1-692-979-11	SWITCH, TACTILE					
S902	1-692-979-11	SWITCH, TACTILE					

MISCELLANEOUS							

	1-571-433-11	SWITCH, PUSH (AC POWER)					
	1-751-680-11	CORD, POWER (WITH NOISE FILTER)					
	(KV-C2981A/C2981D)						
	1-590-460-11	CORD, POWER (WITH CONNECTOR)					
	(KV-C2980B/C2983E)						

	1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)					
	8-598-045-01	TUNER (BTP-EC411)					
	8-451-313-61	DEFLECTION YOKE (Y29FXA)					
	1-402-747-21	COIL, DEGAUSSING					
	1-504-146-11	SPEAKER (5X11CM)					

	1-452-032-00	MAGNET, DISK; 10MM					
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM					
	1-452-509-41	NECK ASSY, CRT (NA308)					
V901	8-733-831-05	PICTURE TUBE SD-191 (A68JY161X)					

ACCESSORIES AND PACKING MATERIALS							

	4-202-767-41	MANUAL, INSTRUCTION (KV-C2981A)					
	4-202-767-51	MANUAL, INSTRUCTION (KV-C2980B)					
	4-202-767-91	MANUAL, INSTRUCTION (KV-C2981D)					
	4-202-767-71	MANUAL, INSTRUCTION (KV-C2983E)					

	*4-039-906-01	BAG, PROTECTION					
	*4-202-006-01	CUSHION (UPPER) (ASSY)					
	*4-202-009-01	CUSHION (LOWER) (ASSY)					
	*4-202-005-01	INDIVIDUAL CARTON					

REMOTE COMMANDER							

	1-467-706-11	REMOTE COMMANDER (RM-833)					

SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-C2981A	RM-833	Italian	SCC-G81E-A	KV-C2983E	RM-833	Spanish	SCC-G82G-A
KV-C2980B	RM-833	French	SCC-G85E-A				

SUPPLEMENT - 1

SUBJECT : CHANGE OF PART NUMBERS

File this supplement with the service manual

INTRODUCTION : Change in part numbers for models with serial numbers begining at.

KV-C2981A	4500001	~
KV-C2980B	4500001	~
KV-C2983E	4500001	~

- **SECTION 6 EXPLODED VIEWS**
 - 6-1. CHASSIS (Page 57)
 - 6-2 PICTURE TUBE (Page 58)
- **SECTION 7 ELECTRICAL PARTS LIST** (Page 59)

TRINITRON® COLOR TV
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EXPLODED VIEWS

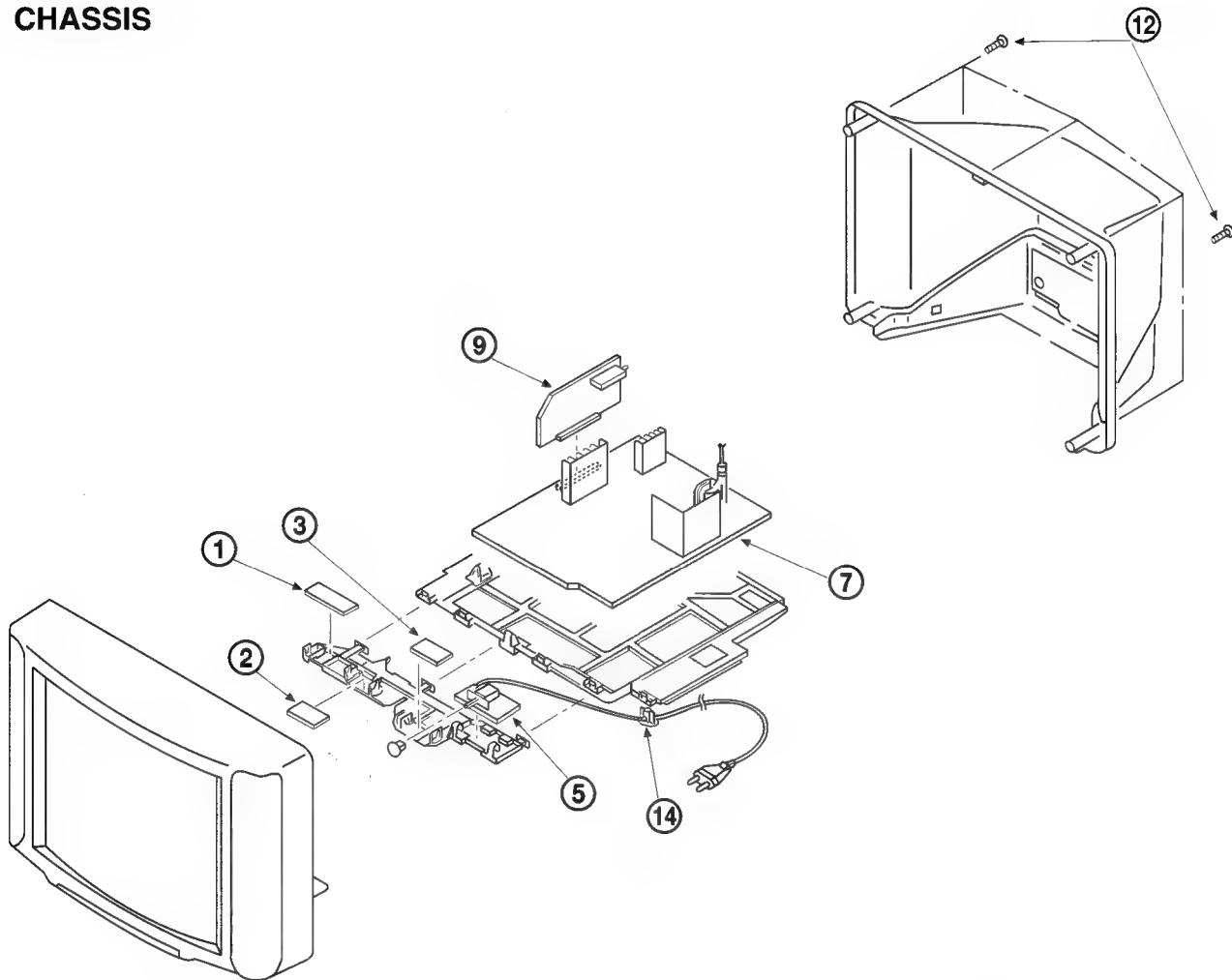
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked **A** are critical for safety.
Replace only with the part number specified.

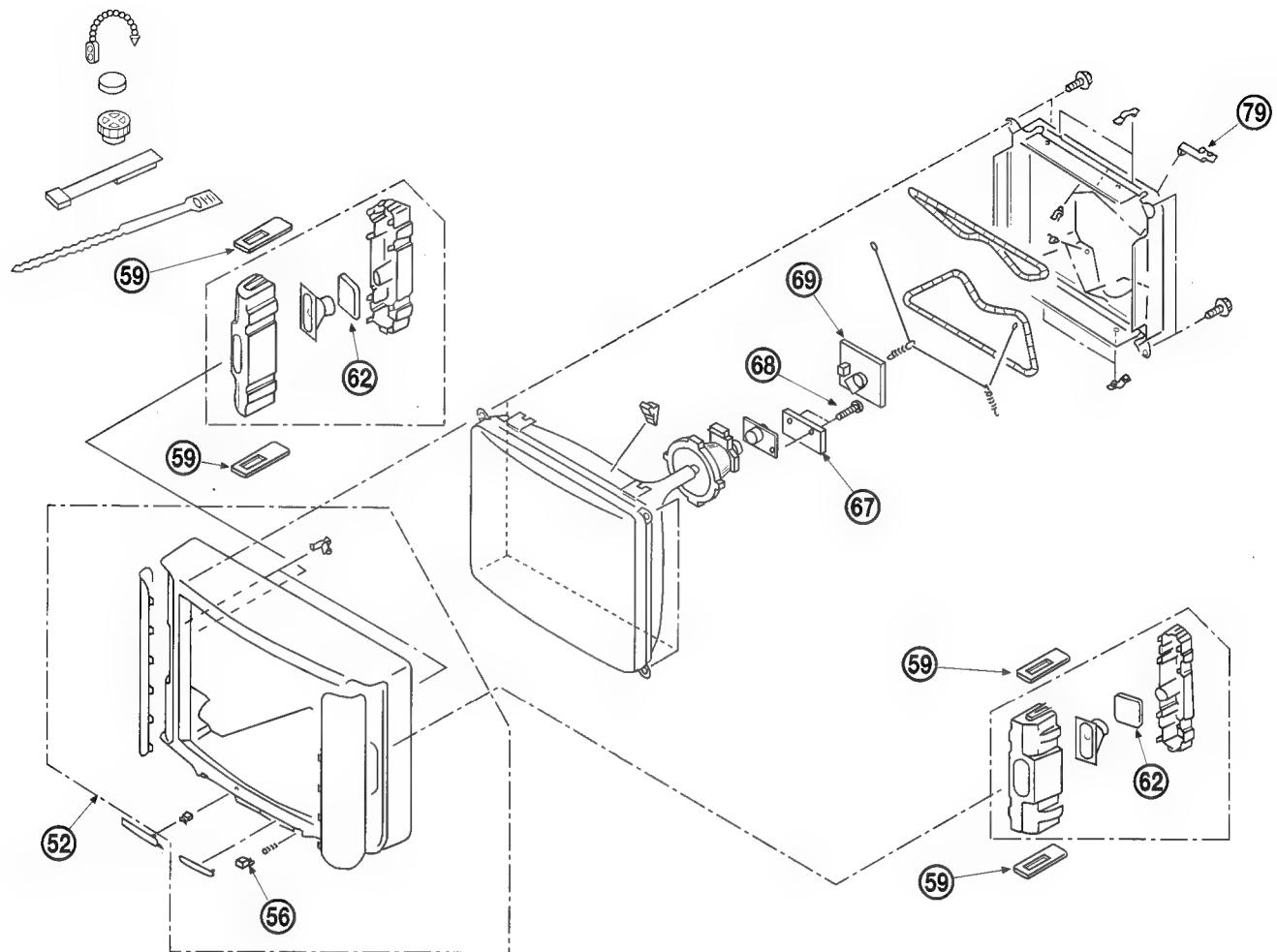
Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CHASSIS



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	*1-656-264-11	H1 BOARD					
2	*1-656-266-11	H3 BOARD					
3	*1-656-265-11	H2 BOARD					
5	*1-656-267-11	F1 BOARD					
7	*A-1642-153-A	D BOARD, COMPLETE					
9	*A-1632-285-A	A BOARD, COMPLETE (KV-C2981A)					
	*A-1632-286-A	A BOARD, COMPLETE (KV-C2980B)					
	*A-1632-287-A	A BOARD, COMPLETE (KV-C2983E)					
12	7-685-663-79	SCREW +BVTIP 4X16					
14	A 4-202-531-01	AC CORD LOCK (SC)					

6-2. PICTURE TUBE



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
52	X-4200-220-1	BEZNET ASSY					
56	4-202-022-01	BUTTON, POWER					
59	4-202-027-01	CUSHION, BOX					
62	4-202-029-01	STOPPER					
67	*A-1644-062-A	VM BOARD, COMPLETE					
68	4-039-356-01	SCREW (3X8), (+) BV TAPPING					
69	*A-1638-066-A	C BOARD, COMPLETE					
79	4-387-284-01	HOLDER, LEAD					

ELECTRICAL PARTS LIST

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked * are critical for safety.
Replace only with the part number specified.

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : mF, PF : mmF

COILS

MMH : mH, μ H : mH

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1632-285-A	A BOARD, COMPLETE (KV-C2981A)	*****	R152	1-216-174-00	METAL GLAZE	100 5% 1/8W
	*A-1632-286-A	A BOARD, COMPLETE (KV-C2980B)	*****	R199	1-216-049-91	METAL GLAZE	1K 5% 1/10W (KV-C2981A/C2983E)
	*A-1632-287-A	A BOARD, COMPLETE (KV-C2983E)	*****	R220	1-216-174-00	METAL GLAZE	100 5% 1/8W
		< CAPACITOR >		R394	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
C24	1-163-108-00	CERAMIC CHIP 43PF	5% 50V	R395	1-216-049-91	METAL GLAZE	1K 5% 1/10W
C118	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	R399	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
C145	1-216-295-91	CONDUCTOR, CHIP (KV-C2981A)					*****
	1-163-093-00	CERAMIC CHIP 10PF	5% 50V (KV-C2980B/C2983E)				*A-1638-066-A C BOARD, COMPLETE *****
C146	1-216-295-91	CONDUCTOR, CHIP (KV-C2981A)					< CONNECTOR >
	1-163-093-00	CERAMIC CHIP 10PF	5% 50V (KV-C2980B/C2983E)	CN701	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
C154	1-163-113-00	CERAMIC CHIP 68PF	5% 50V (KV-C2981A/C2983E)				< DIODE >
C155	1-163-093-00	CERAMIC CHIP 10PF	5% 50V (KV-C2981A/C2983E)	D703	1-535-143-11	LEAD, JUMPER (10.0MM)	
C157	1-163-105-00	CERAMIC CHIP 33PF	5% 50V (KV-C2981A/C2983E)	D704	1-535-143-11	LEAD, JUMPER (10.0MM)	
C362	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	D705	1-535-143-11	LEAD, JUMPER (10.0MM)	
C1003	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V (KV-C2981A/C2983E)	D714	8-719-110-08	DIODE HZ9A1	
C1006	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V (KV-C2981A/C2983E)	D715	8-719-110-08	DIODE HZ9A1	
		< DIODE >		D716	8-719-110-08	DIODE HZ9A1	
D399	8-719-923-30	DIODE MTZJ-T-77-4.7B		D717	8-719-110-08	DIODE HZ9A1	
		< INDUCTOR >		D718	8-719-110-08	DIODE HZ9A1	
L2	1-410-385-11	INDUCTOR CHIP	22UH	D719	8-719-110-08	DIODE HZ9A1	
L105	1-408-410-00	INDUCTOR	12UH (KV-C2981A/C2983E)				*****
L108	1-408-609-41	INDUCTOR	33UH (KV-C2981A/C2983E)				*A-1642-153-A D BOARD, COMPLETE *****
		< TRANSISTOR >					< CAPACITOR >
Q399	8-729-901-01	TRANSISTOR DTC144EK		C501	1-102-074-00	CERAMIC	0.001MF 10% 50V
		< RESISTOR >		C1216	1-137-365-11	FILM	0.0015MF 5% 50V
R124	1-216-031-00	METAL GLAZE	180 5% 1/10W	C1217	1-137-365-11	FILM	0.0015MF 5% 50V
				L804	1-406-903-11	COIL, HORIZONTAL LINEARITY	

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Consumer A & V Products Company
TV & Display Products Div.

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SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-C2981A	RM-833	Italian	SCC-G81E-A	KV-C2981D	RM-833	AEP	SCC-G77C-A

SUPPLEMENT - 2

SUBJECT : CHANGE OF PART NUMBERS

File this supplement with the service manual

INTRODUCTION : Change in part numbers for KV-C2981D with serial number beginning at 600001.

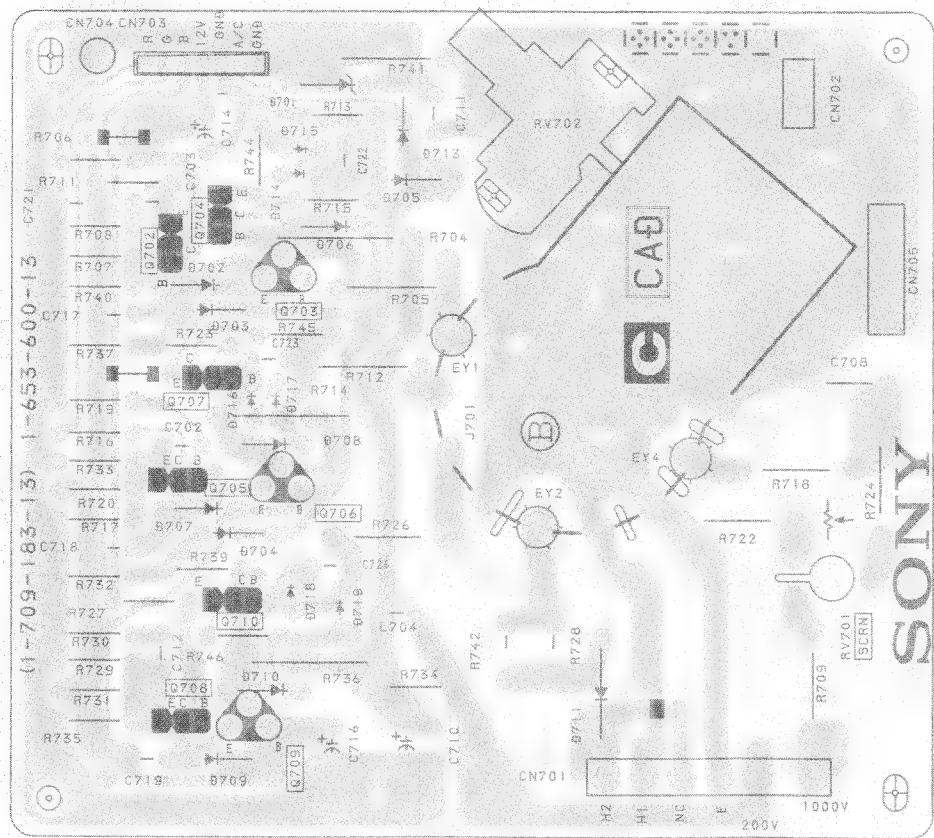
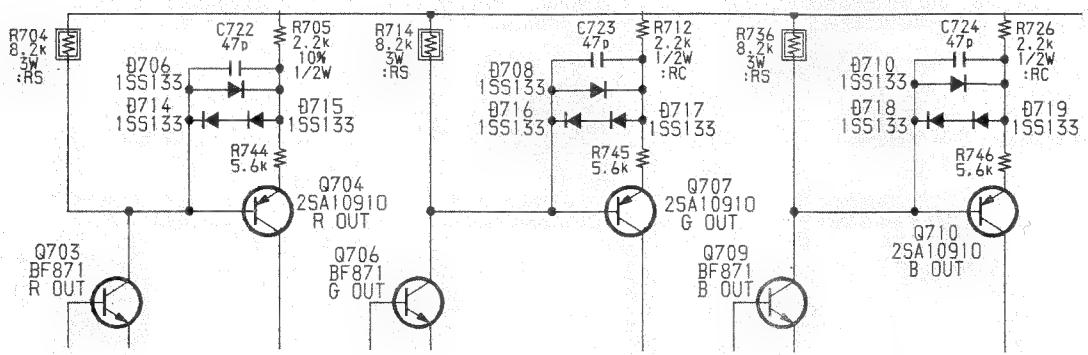
- **SECTION 5 DIAGRAMS** (C board, Page 53) See page 3
(A board, Page 44) See page 5
- **SECTION 6 EXPLODED VIEWS**
 - 6-1. CHASSIS (Page 57) See page 8
 - 6-2. PICTURE TUBE (Page 58) See page 9
- **SECTION 7 ELECTRICAL PARTS LIST** (Page 59) See page 10

TRINITRON® COLOR TV
SONY®

C

[RGB OUT]

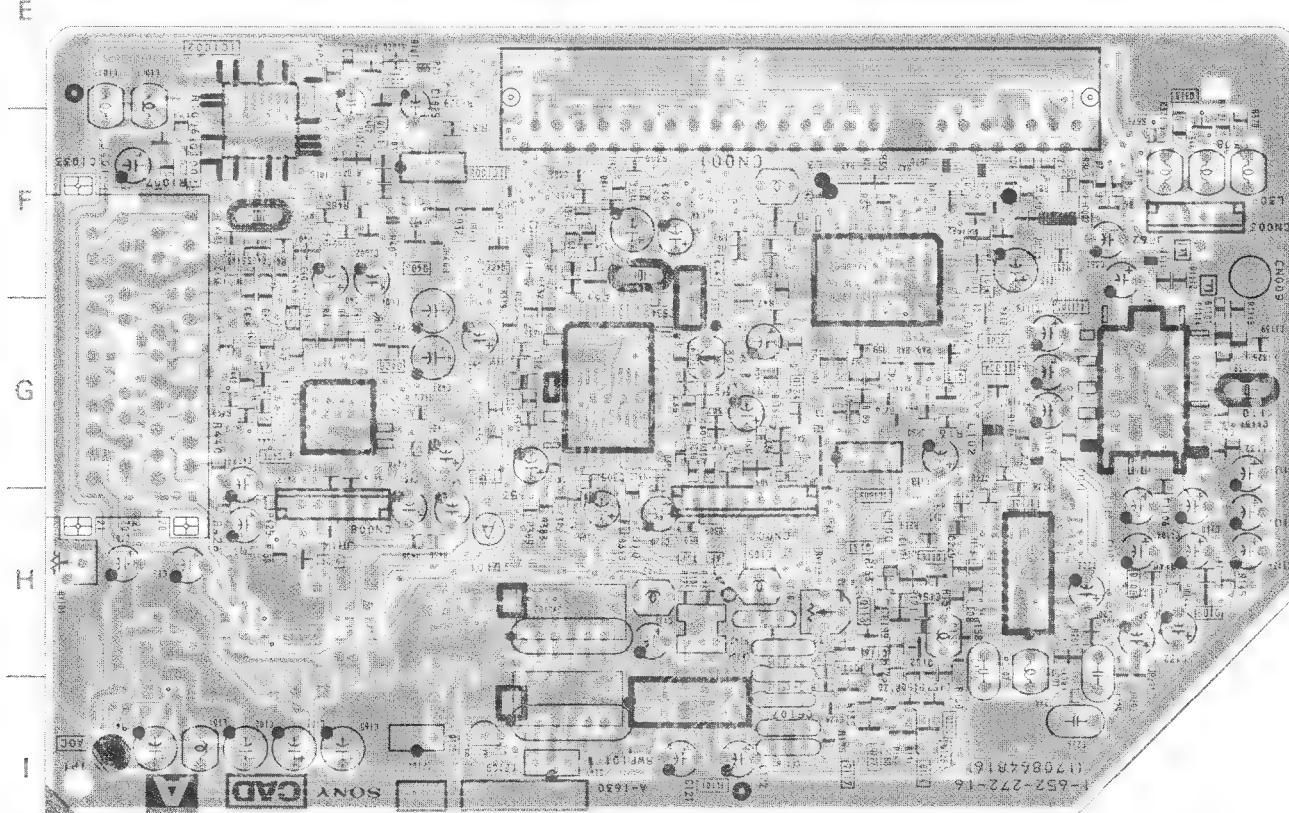
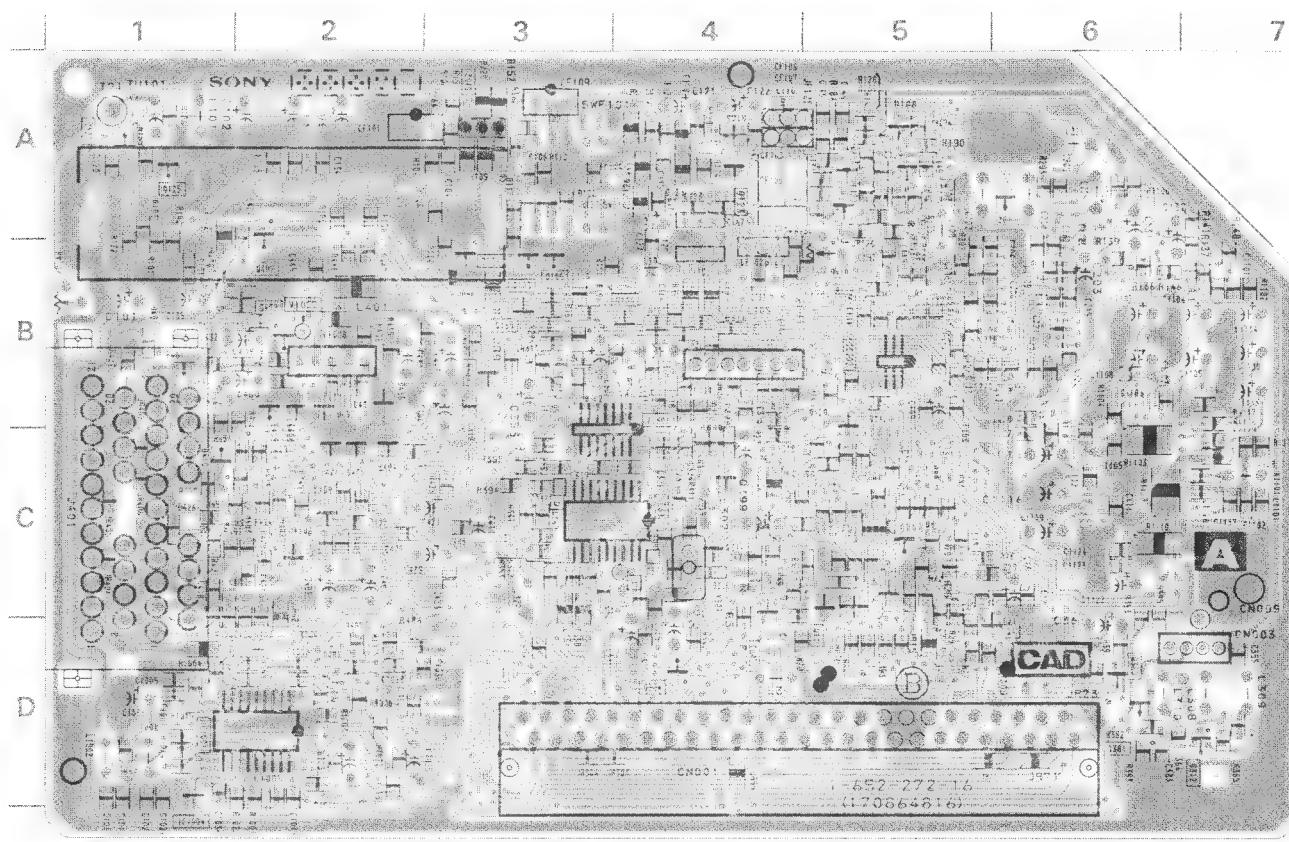
- C BOARD -



A

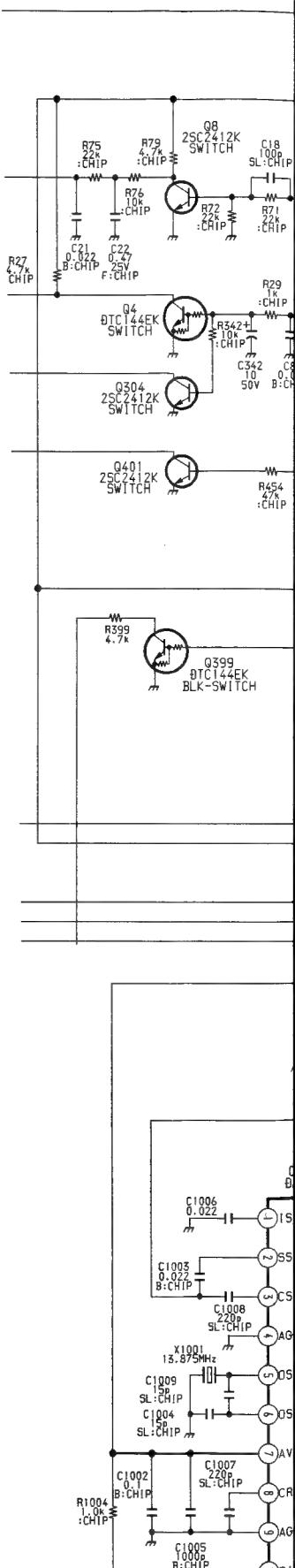
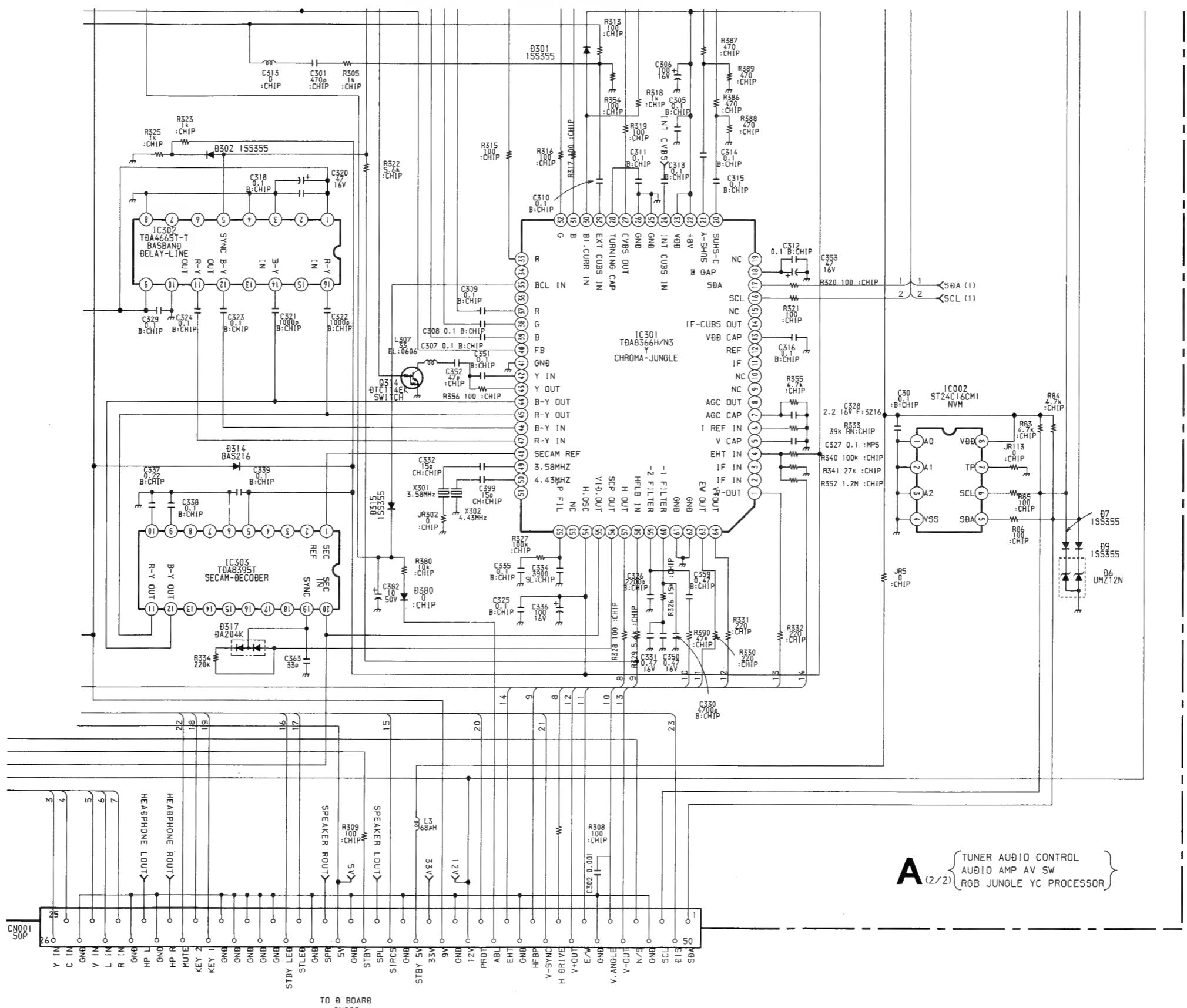
[TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR]

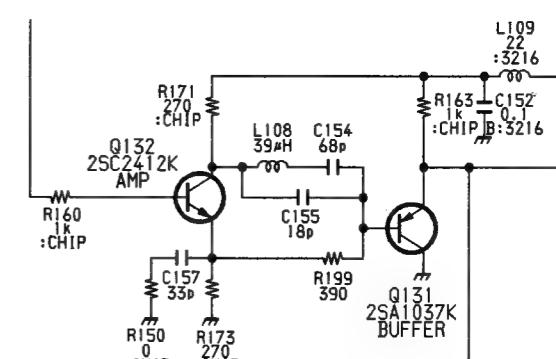
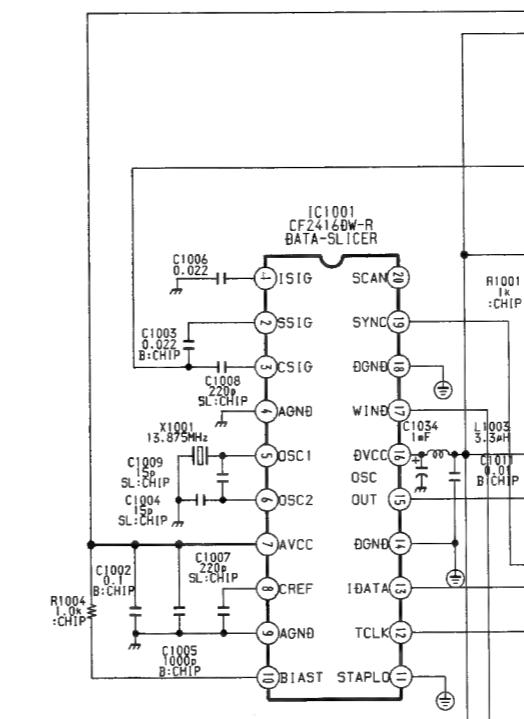
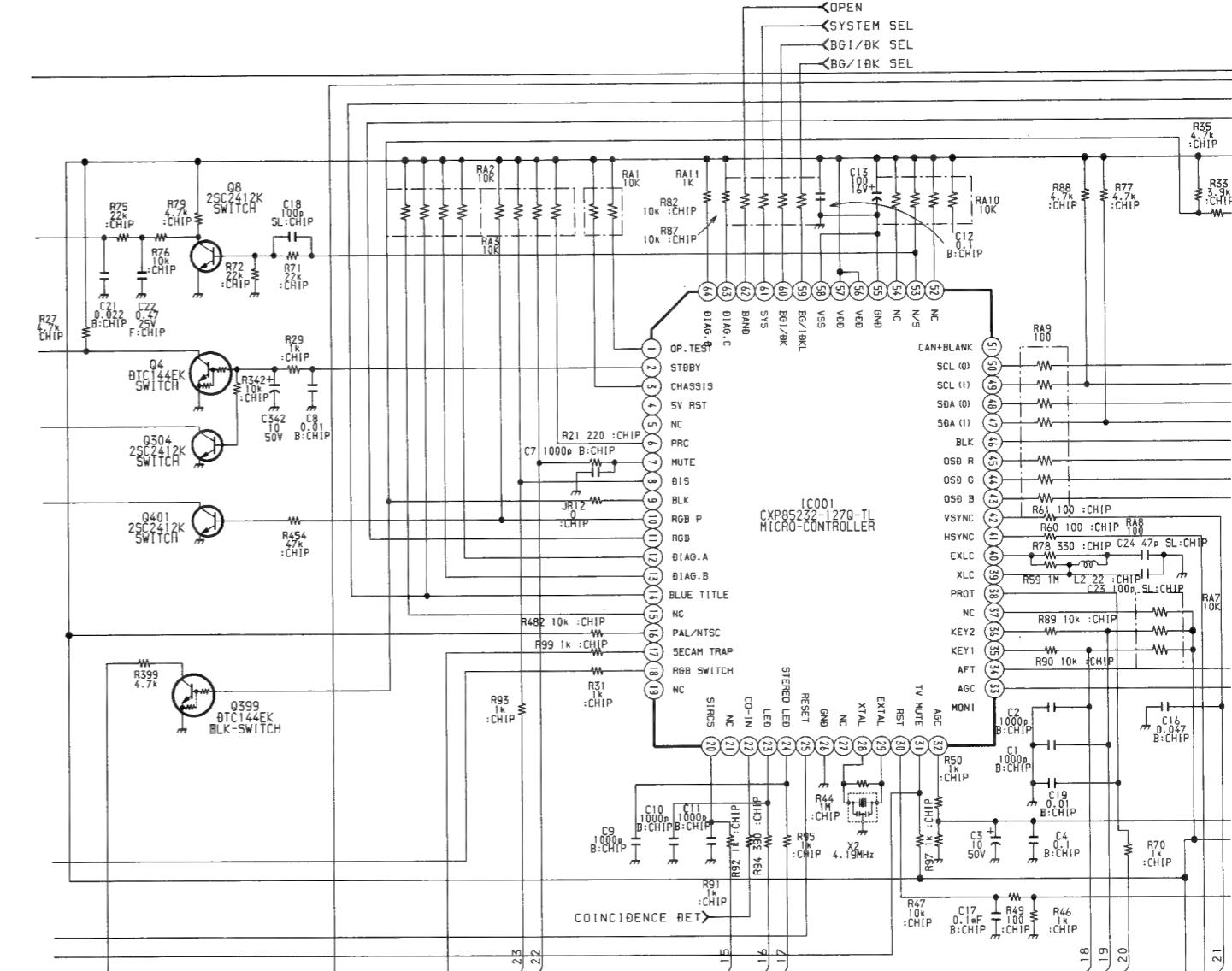
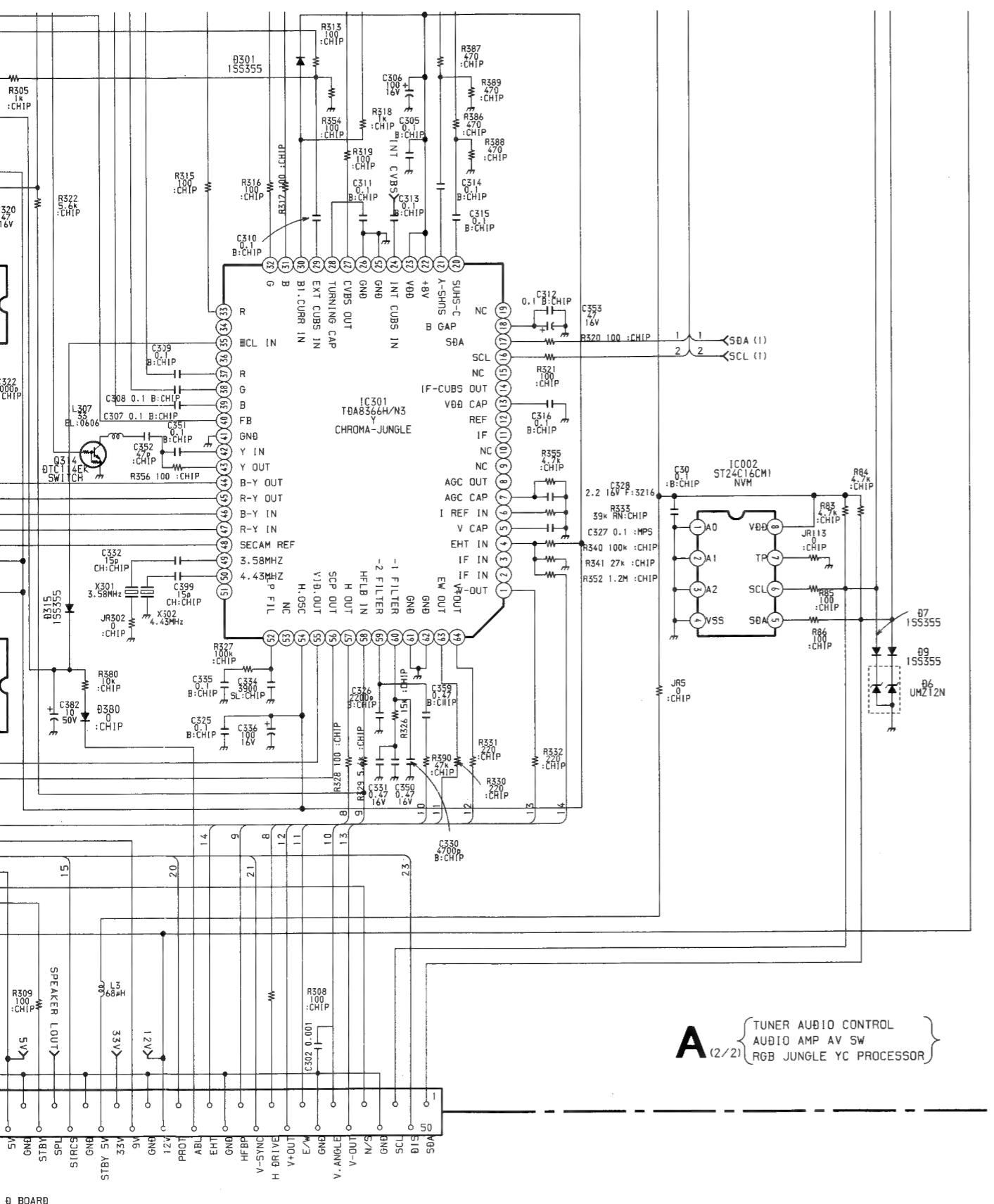
- A BOARD -



A BOARD

IC	
IC001	G-5
IC002	F-6
IC003	D-4
IC101	I-4
IC201	H-6
IC202	B-5
IC301	G-3
IC302	B-4
IC303	C-4
IC401	G-2
IC1001	D-1
IC1002	E-1
IC1003	F-3
DIODE	
D6	F-6
D7	F-6
D9	F-6
D11	C-5
D101	B-1
D103	A-5
D201	A-6
D301	H-4
D302	B-3
D303	G-4
D304	B-4
D305	B-4
D308	H-6
D314	B-3
D315	G-4
D317	G-3
D380	F-4
D401	B-2
D402	C-2
D404	C-2
D405	C-2
D406	C-2
D407	B-2
D408	C-2
D409	C-2
D410	C-1
D411	C-2
D1002	F-2
TRANSISTOR	
Q4	D-6
Q8	C-5
Q11	D-5
Q12	C-5
Q14	F-5
Q102	A-3, I-3
Q107	A-5
Q108	H-7
Q109	H-5
Q114	H-5
Q116	H-5
Q117	I-5
Q120	B-5
Q123	A-4
Q124	I-5
Q130	B-3
Q131	H-5
Q132	H-5
Q133	B-4
Q134	G-4
Q304	D-4
Q312	D-7
Q313	E-7
Q314	C-4
Q380	D-6
Q381	D-6





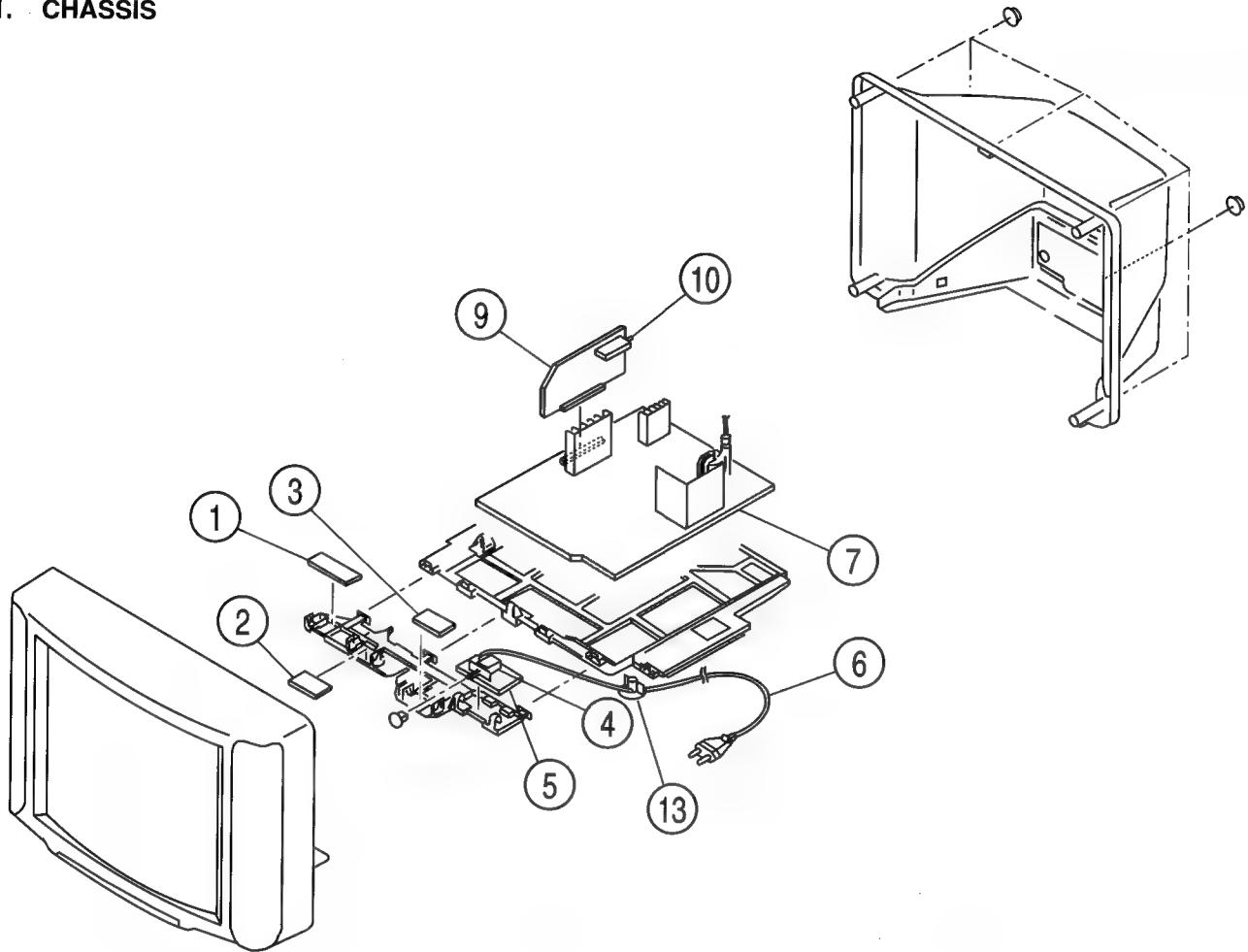
EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
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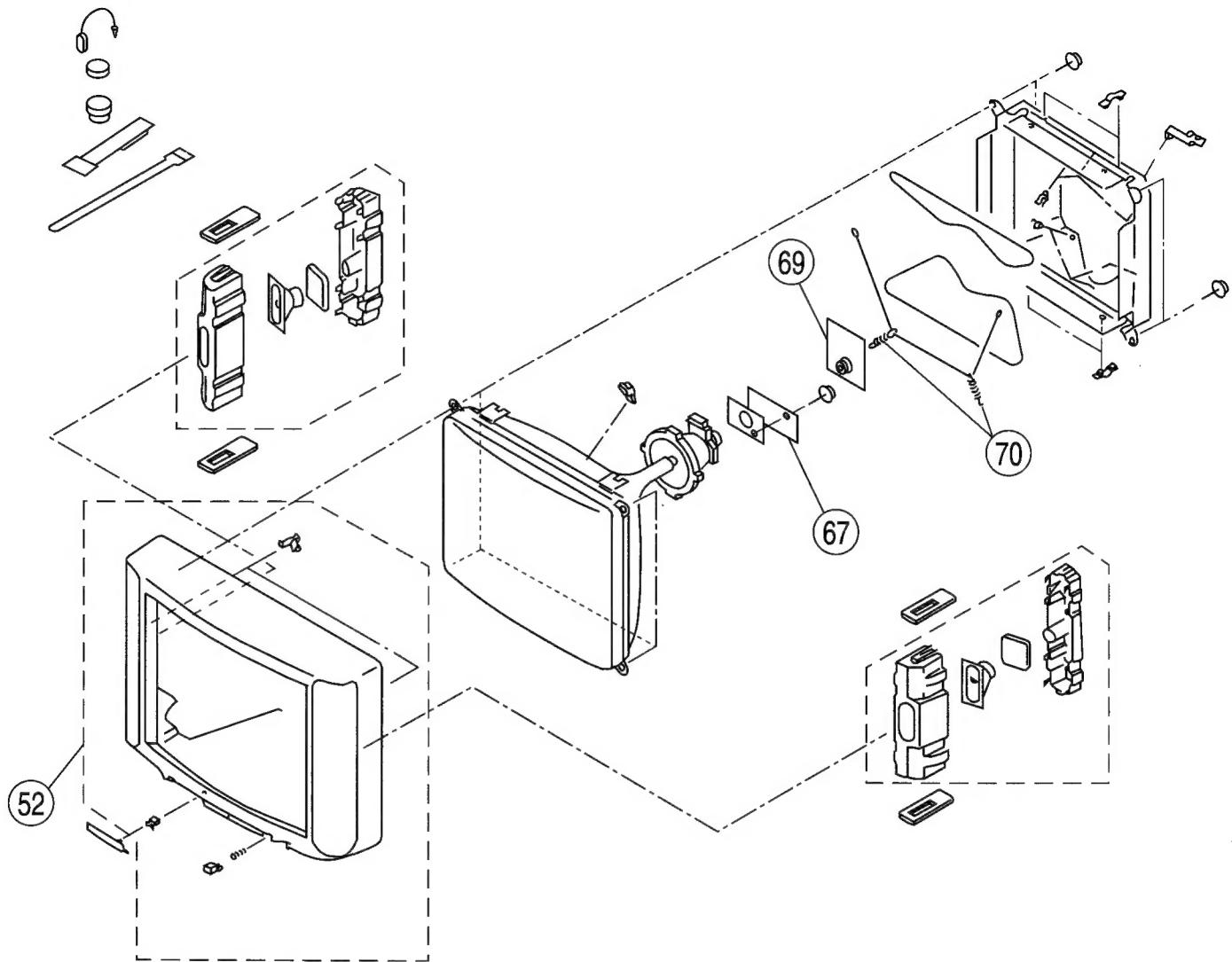
The components identified by shading and marked  are critical for safety.
Replace only with the part number specified.

6-1. CHASSIS



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	*A-1646-057-A	H1 BOARD, COMPLETE					
2	*A-1646-059-A	H3 BOARD, COMPLETE					
3	*A-1646-058-A	H2 BOARD, COMPLETE					
4	1-571-433-21	SWITCH, PUSH (AC POWER)					
5	*A-1624-029-A	F1 BOARD, COMPLETE					
6	1-693-185-11	POWER CORD, 100-240V					
7	*A-1642-115-A	D BOARD, COMPLETE					
9	*A-1632-174-A	A BOARD, COMPLETE					
10	1-693-185-11	TUNER (UV-916H)					
13	*4-202-531-01	AC CORD LOCK (SC)					

6-2. PICTURE TUBE



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
52	X-4200-183-1	BEZNET ASSY	54 - 58				
54		FITTED TO BEZNET ASSY					
55		FITTED TO BEZNET ASSY					
65		NOT USED					
67	*A-1644-028-A	VM BOARD, COMPLETE					
69	*A-1638-046-A	C BOARD, COMPLETE					
70	4-369-318-31	SPRING, TENSION					

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : mF, PF : mmF

COILS

MMH : mH, μ H : mH

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked  are critical for safety. Replace only with the part number specified.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1624-029-A	F1 BOARD, COMPLETE	*****	C1006	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
				C1018	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C1019	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C1021	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C1026	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	*A-1632-174-A	A BOARD, COMPLETE (KV-C2981D)	*****	C1027	1-163-038-00	CERAMIC CHIP 0.1MF	25V
TP1	1-535-084-00	1P TERMINAL PIN		C1028	1-163-038-00	CERAMIC CHIP 0.1MF	25V
		< CAPACITOR >		C1029	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C1030	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C12	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C1031	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C117	1-163-038-00	CERAMIC CHIP 0.1MF	25V				
C145	1-216-295-00	METAL GLAZE 0 5% 1/10W		C1032	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C146	1-216-295-00	METAL GLAZE 0 5% 1/10W					
C152	1-163-038-00	CERAMIC CHIP 0.1MF	25V				
C154	1-163-113-00	CERAMIC CHIP 68PF	5% 50V				
C155	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	D7	8-719-988-62	DIODE 1SS355	
C157	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	D9	8-719-988-62	DIODE 1SS355	
C302	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	D11	8-719-988-62	DIODE 1SS355	
C305	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D101	8-719-977-81	DIODE DTZ33B	
C307	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D201	8-719-800-76	DIODE 1SS226	
C308	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D301	8-719-988-62	DIODE 1SS355	
C309	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D302	8-719-988-62	DIODE 1SS355	
C310	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D303	8-719-988-62	DIODE 1SS355	
C313	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D304	8-719-988-62	DIODE 1SS355	
C314	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D305	8-719-988-62	DIODE 1SS355	
C315	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D315	8-719-988-62	DIODE 1SS355	
C318	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D317	8-719-800-76	DIODE 1SS226	
C323	1-163-038-00	CERAMIC CHIP 0.1MF	25V				
C324	1-163-038-00	CERAMIC CHIP 0.1MF	25V				
C325	1-163-038-00	CERAMIC CHIP 0.1MF	25V	IC001	8-752-862-92	IC CXP85232-127Q-TL	
C329	1-163-038-00	CERAMIC CHIP 0.1MF	25V	IC004	NOT USED		
C332	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	IC101	8-759-277-66	IC TDA9814T/V2-T	
C333	NOT USED			IC301	8-759-336-44	IC TDA8366H/N3	
C339	1-163-038-00	CERAMIC CHIP 0.1MF	25V	IC302	8-759-288-85	IC TDA4665T-T	
C351	1-163-038-00	CERAMIC CHIP 0.1MF	25V	IC1001	8-759-295-92	IC CF72416-DW-R	
C362	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	IC1002	8-759-252-10	IC CF70200FN-R	
C363	1-163-105-00	CERAMIC CHIP 33PF	5% 50V				
C365	NOT USED						
C399	1-163-097-00	CERAMIC CHIP 15PF	5% 50V				
C433	1-163-038-00	CERAMIC CHIP 0.1MF	25V	JR5	1-216-295-91	METAL GLAZE 0 5% 1/10W	
C445	1-163-038-00	CERAMIC CHIP 0.1MF	25V	JR51	NOT USED		
C1002	1-163-038-00	CERAMIC CHIP 0.1MF	25V	JR57	NOT USED		
C1003	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	JR125	NOT USED		
				JR302	1-216-295-91	METAL GLAZE 0 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R21	1-216-182-00	METAL GLAZE	220 5% 1/8W	D710	8-719-991-33	DIODE 1SS133T-77	
R124	1-216-041-00	METAL GLAZE	470 5% 1/10W	D713	8-719-991-33	DIODE 1SS133T-77	
R152	1-216-174-00	METAL GLAZE	100 5% 1/8W	D714	8-719-991-33	DIODE 1SS133T-77	
R220	1-216-174-00	METAL GLAZE	100 5% 1/8W	D715	8-719-991-33	DIODE 1SS133T-77	
R334	1-216-105-91	METAL GLAZE	220K 5% 1/10W	D716	8-719-991-33	DIODE 1SS133T-77	
R368	NOT USED			D717	8-719-991-33	DIODE 1SS133T-77	
R399	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	D718	8-719-991-33	DIODE 1SS133T-77	
R1005	NOT USED			D719	8-719-991-33	DIODE 1SS133T-77	
			< COIL >				
L1	NOT USED						
L2	1-410-385-11	INDUCTOR CHIP	22UH	R713	NOT USED		
L3	1-408-419-00	INDUCTOR	68UH	R743	NOT USED		
L105	1-408-410-00	INDUCTOR	12UH	R744	1-249-426-11	CARBON 5.6K 5% 1/4W	
L106	NOT USED			R745	1-249-426-11	CARBON 5.6K 5% 1/4W	
L108	1-408-416-00	INDUCTOR	39UH	R746	1-249-426-11	CARBON 5.6K 5% 1/4W	
L315	NOT USED						
L1101	NOT USED						
			< TRANSISTOR >				
Q399	8-729-901-01	TRANSISTOR DTC144EK					
Q407	8-729-923-89	TRANSISTOR DTC123EK-T147					
			< VARIABLE RESISTOR >				
RV102	NOT USED			C616	1-111-067-11	ELECT 0.001MF 20% 25V	
				C805	NOT USED		
				C839	1-136-189-00	FILM 0.1MF 10% 250V	
			< TUNER >				
TU101	1-693-185-11	TUNER (UV-916H)					
			< CRYSTAL >				
X301	1-567-505-11	OSICILLATOR, CRYSTAL					
X302	1-567-504-11	OSICILLATOR, CRYSTAL					
			< DIODE >				
				D504	8-719-991-33	DIODE 1SS133T-77	
				D506	8-719-991-33	DIODE 1SS133T-77	
				D613	8-719-045-48	DIODE FML-G12S	
				D617	8-719-991-33	DIODE 1SS133T-77	
				D618	8-719-991-33	DIODE 1SS133T-77	
			< CAPACITOR >				
C704	NOT USED			D619	8-719-991-33	DIODE 1SS133T-77	
C706	NOT USED			D620	8-719-991-33	DIODE 1SS133T-77	
C707	NOT USED			D622	8-719-923-60	DIODE MTZJ-T-77-9.1A	
C709	NOT USED			D625	8-719-991-33	DIODE 1SS133T-77	
C714	1-126-967-11	ELECT	47PF 20% 16V	D800	8-719-991-33	DIODE 1SS133T-77	
C722	1-101-880-00	CERAMIC	47PF 5% 50V	D801	8-719-991-33	DIODE 1SS133T-77	
C723	1-101-880-00	CERAMIC	47PF 5% 50V	D802	8-719-991-33	DIODE 1SS133T-77	
C724	1-101-880-00	CERAMIC	47PF 5% 50V	D808	NOT USED		
				D815	NOT USED		
				D902	8-719-923-60	DIODE MTZJ-T-77-9.1A	
			< CONNECTOR >				
CN701	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		D903	8-719-923-60	DIODE MTZJ-T-77-9.1A	
				D904	8-719-923-60	DIODE MTZJ-T-77-9.1A	
				D905	8-719-923-60	DIODE MTZJ-T-77-9.1A	
				D906	8-719-923-60	DIODE MTZJ-T-77-9.1A	
			< DIODE >				
D702	8-719-991-33	DIODE 1SS133T-77					
D703	NOT USED			IC602	8-749-920-61	IC SE-135N	
D704	NOT USED			IC603	8-759-144-82	IC UPC2405HF	
D705	NOT USED			IC605	8-759-231-58	IC TA7812S	
D706	8-719-991-33	DIODE 1SS133T-77					
			< COIL >				
D707	8-719-991-33	DIODE 1SS133T-77		JW150	NOT USED		
D708	8-719-991-33	DIODE 1SS133T-77					
D709	8-719-991-33	DIODE 1SS133T-77					

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
L802	NOT USED						
		< TRANSISTOR >					
Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q603	8-729-027-08	TRANSISTOR 2SC2389STP-R					
Q1201	8-729-900-74	TRANSISTOR DTC143TS					
		< RESISTOR >					
R818	NOT USED						
R901	1-247-734-11	CARBON	39 5% 1/2W				
R902	1-247-734-11	CARBON	39 5% 1/2W				

*A-1644-028-A VM BOARD, COMPLETE							

		< CONNECTOR >					
CN1701	*1-564-344-11	CONNECTOR, BOARD TO BOARD 8P					
		< DIODE >					
D1701	8-719-991-33	DIODE 1SS133T-77					
D1702	8-719-991-33	DIODE 1SS133T-77					
D1703	8-719-991-33	DIODE 1SS133T-77					
D1706	8-719-991-33	DIODE 1SS133T-77					
D1707	8-719-991-33	DIODE 1SS133T-77					
		< TRANSISTOR >					
Q1702	8-729-119-76	TRANSISTOR 2SA1175-HFE					

*A-1646-057-A H1 BOARD, COMPLETE							

*A-1646-058-A H2 BOARD, COMPLETE							

*A-1646-059-A H3 BOARD, COMPLETE							

Sony Corporation
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